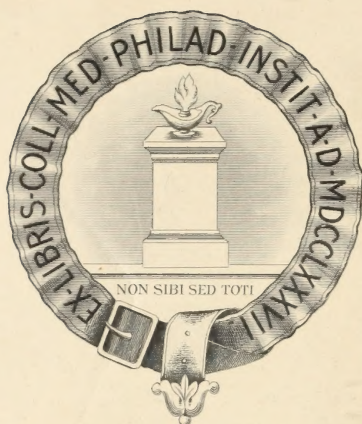




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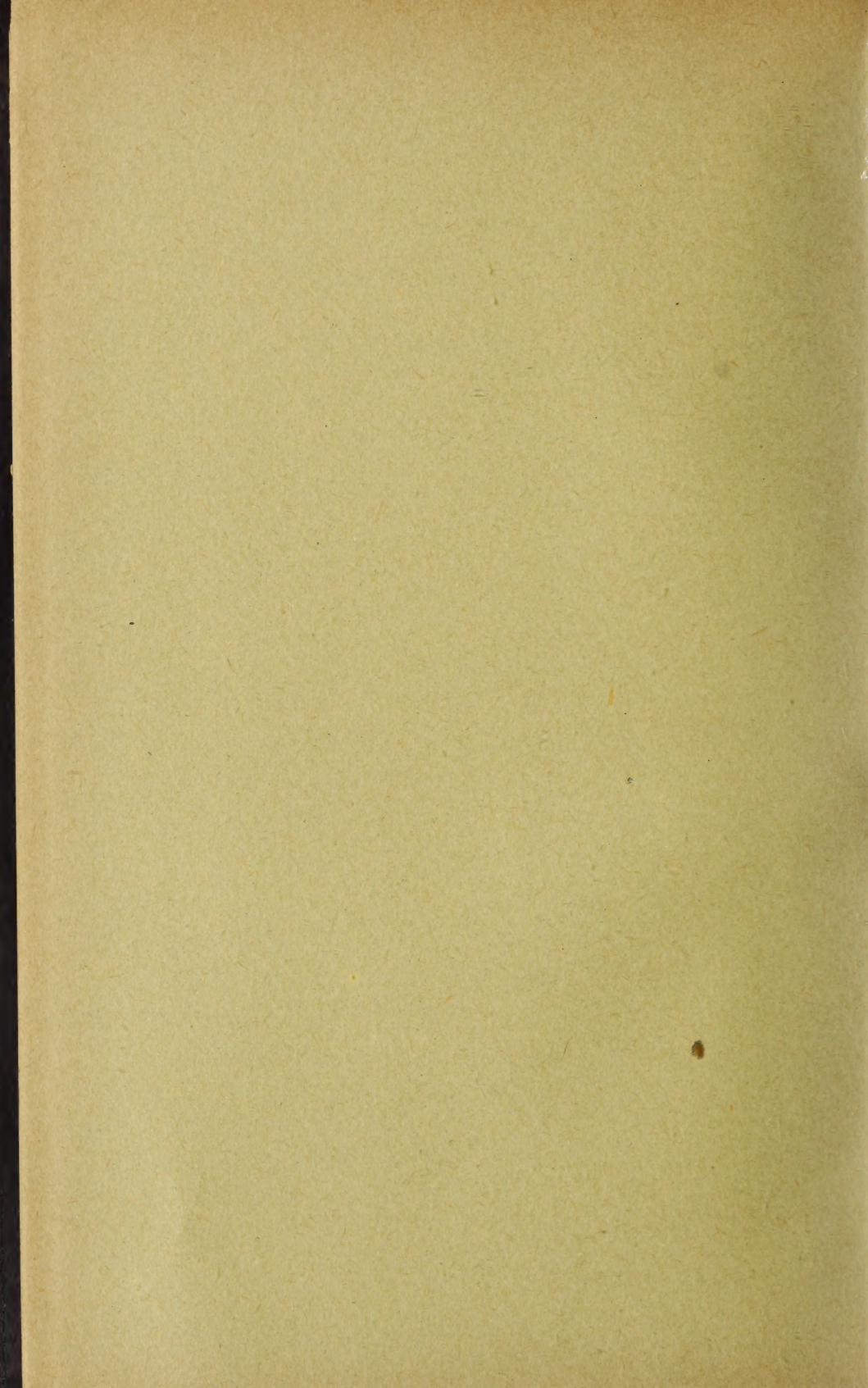



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SUBCUTANEOUS ABSCESS CAUSED BY THE SPOROTHRIX SCHENCKII—REPORT OF A CASE.

BY J. M. BURLEW, S.M., M.D., SANTA ANA, CAL.

Mr. E—, native of Spain and resident of San Juan Capistrano, Cal., age 34, farm laborer, came asking advice for an abscess on the left cheek and numerous small abscesses on the right anterior leg.

The affected area on the cheek was red, markedly raised above the surface, hard, particularly the edges, and covered an area about $1\frac{1}{2}$ inches. Over its central portion on pressure from several minute openings small drops of a thick, tenacious, jelly-like yellow pus could be expressed, to be followed on further pressure by blood. The beard was falling out over the central surface. Inside the cheek the mucous membrane was smooth, but the hard mass could be felt through it. The glands of the neck were not affected, so also of the body in general. The abscesses on the leg, developing about two weeks previous to that on the face, were superficial, $\frac{1}{4}$ to $\frac{3}{4}$ inch in diameter, necrossing the tissue rapidly, spreading, chiefly at the

periphery, but also burrowing deep into the tissue, and discharging a small amount of thick pus. The cheek was slightly painful; the leg was very painful. The trouble in both the leg and face was initiated by intense itching, which disappeared as the abscesses developed. No history of traumatism. Examination showed no other pathological condition of the body.

From the small openings in the abscess on the cheek cultures were made by passing the platinum needle deep into the tissues and inoculating agar-agar slants. This was repeated on several different occasions, giving like results. Cultures were also made from the abscesses on the leg. The cultures from the cheek gave a growth of the staphylococcus albus and an organism about to be described. The cultures from the leg gave a growth of the staphylococcus albus and a bacillus having all the characteristics of a saphrophite.

A STUDY OF THE ORGANISMS FROM THE
CHEEK

In agar-agar in 24 to 72 hours the growth appears as a shiny semi-opaque line along the smear, in 10 to 13 days spreading out to cover the entire surface of the media with a white growth, usually at this time fluffy and snow-like from the development of mycelium (if the growth is rapid it is darker brown and has a lusterless, smeary appearance); as it grows older it becomes grayish-white or even darker. Growth takes place downward into the media more or less. Upon glycerine, maltose or dextrose agar there is no modification of the growth.

Gelatine in 72 hours shows a slight growth resembling ground glass, gradually spreading until in 20 to 30 days the surface is covered with an opaque to purer white growth, sometimes as the culture grows older forming a fluffy network above, taking on a light brown color. In stab growth occurs along the line of the needle as a flattened, feathery, closely related mass, diminishing as the depth from the surface increases. No liquefaction of the media occurred, or any change in color of litmus gelatine.

Nutrient peptone broth. Growth takes place in flocculent feathery masses, slowly increasing in size. As the culture becomes older a fine sediment forms. The broth remains clear.

Inspiated blood serum. The growth is slow and scanty at first, but later becomes a more marked grayish-white layer to be followed in several days by beginning liquefaction of the media, which becomes complete in two weeks. There are formed flocculent masses in the bottom, the liquid above remaining comparatively clear.

Morphology. The completely developed mould appears as a closely joined tangled mass of septate branching mycelium and ovoid bodies, which have been

termed spore bodies. The individual filaments of the mass are segmented by transverse septae, placed along their course at irregular intervals. This is less marked as the culture becomes older. The branching apparently takes place by a lateral budding out from the parent trunk. The structure of the space between the septae is differentiated, containing at irregular intervals refractile round bodies. The spore bodies vary in size and shape, but are most frequently ovoid—the younger often circular. They contain areas which are less refractile to light than the rest, outside of which well defined granules are often found. The spore bodies are formed either by a direct budding from the side of the filament or from its extremity. The former are single, the latter usually in groups.

The filaments and spore bodies stain by ordinary aniline dyes and by Gram's method.

The organism above described corresponds culturally with a single exception (the liquefaction of blood serum), and morphologically to the *Sporothrix Schenckii*.

Differences in cultural peculiarities have been found.¹ Foulerton describes no liquefactions of gelatine, while Schenck's and Hecktone's cultures liquefied gelatine. This has been explained by the reaction of the media. The blood serum used is that produced by Cutter and is acid in reaction.

Therapeutic proof of the identity of the organism is furnished in that previous to its isolations the lesions were treated by ordinary methods of local applications with the condition becoming progressively worse. Upon its recognition five-drop doses of the saturated solution of potassium iodid, rapidly increased to forty drops, had healed the lesion on the cheek in about three weeks.

¹Foulerton Trans. Path. Soc. of London. 1901—III., p. 259.

Those of the lower limb, after swabbing out with pure lysol, had slowly healed under local treatment.

Inoculation of animals with the *Sporothrix Schenkii* has been unsatisfactory. Guinea-pigs and tame mice have given results.

A suspension of the above organisms in nutrient bullion was injected into the peritoneal cavity of a guinea-pig. In four weeks the pig was killed. At the point of injection between the intestines and the abdominal wall a small abscess had formed. Stains from this gave numerous small spore bodies. Cultures gave no growth. A second pig was inoculated and killed in 16 days. In the great omentum at the site of a mass of adhesions between it and the intestines was a hard nodule. Upon section it was found to be composed of multiple minute abscesses, from which a thick, jelly-like tenacious pus exuded. Smears of this showed numerous spore bodies. Cultures gave a growth having all the characteristics of the organism that was injected.

From the lesions of infected animals the spore bodies only have been found, the mycelium not developing under parietic conditions.

In its pathogenic action the organism produces a lesion of the nature of a granulomata which may at times show progressive necrotic changes. The parasite may or may not be recognized in the lesion and only obtained by culture. The spore bodies are found chiefly scattered about between the mononuclear cells which form the granulomata. In the periphery of a nodule masses of spore bodies are sometimes seen apparently lying within small vessels. The spore bodies have also been found within polynuclear cells and giant cells.

This organism was first described by Schenck in 1898 in a paper² "On Re-

fractory Subcutaneous Abscesses Caused by a Fungus, Possibly Related to the *Sporothrix*." Shortly afterward Heckone and Perkins published a paper on³ "Refractory Subcutaneous Abscesses Caused by *Sporothrix Schenkii*, a New Pathogenic Fungus."

Schenck's case was that of a man of 36, following the scratch of a nail on the index finger. A lymphangitis extended up the forearm and a series of abscesses formed, containing gelatinous pus. Hecktoen and Perkins, that of a boy of five, who had struck the finger with a hammer. A cellulitis and lymphangitis followed, with suppuration of the axillary glands. Recovery after three months.⁴ Orphulins and Moffit have described a case of general infection.

According to a recent review of the subject in the ⁵Journal of the American Medical Association, the above mentioned cases are all that have appeared in English literature, but a number of cases of various forms of human infection by the organisms have been reported from France, Brazil and Argentina. The infection has been over the body in general, localized in the foot, palpebra, and upon the mucus membranes.

Very little seems to be known of the organism in nature. It has been shown to be present on the leaves of lettuce, to which infection in one case was traced. It has been found on the mucus membranes of rats, suggesting that it existed upon grains and like foods of these animals.

This infection is very likely to be mistaken for syphilis, tuberculosis, or glanders. It is self evident that microbiologic methods of diagnosis will determine the exact nature of the process.

²Journal Experimental Medicine, Vol. 2, p. 77, 1898.

³Phil. Med. Jour., Vol. V., p. 1471, 1898.

⁴Jour. A. M. Ass. Vol. LI, No. 6, p. 500, 1898.

⁵John Hopkins Bulletin, Vol. IX., p. 286, 1898.

BISMUTH PASTE IN THE DIAGNOSIS AND TREATMENT OF FISTULOUS TRACTS.

BY J. K. SWINDT, M.D., POMONA, CAL.

Chronic fistulous tracts occupy a prominent place in the physician's Chamber of Horrors. Sinuses from tuberculous and other forms of bony caries, discharging drainage wounds from empyaemas, fistulas following operations upon the hollow viscera, will occasionally persist after any or all sorts of treatment, and continue to pour out their purulent contents to the annoyance of the patient and the chagrin of the physician. So anxious are these sufferers to be rid of their running sores that they will submit to repeated operations for the eradication of the disease. It is to this particular class of fistulous tracts which do not yield to the ordinary procedures of good surgeons that the method described in this paper is especially applicable.

Modern surgery dictates that the healing of the fistulous tract depends upon the complete removal of the area of infection which causes it, or in other words the conversion of the infected wound into a clean wound which will heal by granulation. Whenever such results are not accomplished by surgical treatment it is because faulty methods of diagnosis have not revealed the full extent of the infection.

Up to the present year the means of diagnosing the extent of these tracts consisted of the probe, injections of colored fluids or hydrogen peroxide, and the use of the X-ray to discover certain bone lesions. None of these methods are competent to indicate all of the recesses and branches of a fistulous tract, and consequently give the surgeon no precise knowledge of the dissection which he must make in order to eradicate the pus canal in its entirety.

The treatment of fistulous tracts may be divided into two forms, medicinal

and surgical. Medicinal treatment consists of irrigation with antiseptic solutions, injections of antiseptic emulsions, and systemic therapy either by constructive drugs or biological products, such as serums and vaccines.

The surgical treatment includes fixation by casts and splints, Bier's hyperaemia, curetment and packing of sinuses in the soft parts, and the removal of diseased bone by curetment, sequestrotomy and excision. To these have been added various methods of filling in the cavities left in the bones, such as by skin and osteoplastic flaps, Schede's blood clot, Senn's decalcified bone chips and the Mosetig-Moorhof wax plug.

The medicinal form of treatment has proved almost valueless. In principle as in practice it is essentially wrong. Not only do the medicaments of any irrigation or injection fluid fail to come in contact with the remote sinuses of a fistulous tract, but the fluids themselves often aggravate rather than alleviate the condition present. Watery fluids especially prevent granulation by macerating the walls of the sinuses. Irrigation of any septic cavity is rapidly going out of practice. In Ochsner's clinic it has not been used for thirteen years. Pus in reality may be considered a natural defense of the system against bacterial invasion. Pus contains many leucocytes actively engaged in the phagocytic destruction of bacteria, and if provided with ample means of egress through free incision and drainage, so that there is no retention under pressure and consequent absorption of toxins, its presence may be of great value to the individual. Dry swabbing is much preferable to aqueous flushing.

Antitoxic serums and vaccine therapy have not been efficacious in these cases,

largely because of the fact that mixed infections are almost invariably present.

Surgical treatment in some one or several of the forms mentioned has achieved success in the great majority of cases of fistulous tracts. Still the percentage of failures after surgery is uncomfortably high and often where cures are affected it is at the expense of extensive, mutilating and painful operations.

The causes of surgical failure have been pointed out. Because of some undiscovered ramification of the sinus either in the soft parts or the bone a nidus for a new infection is left behind and the discharge persists.

Realizing that the surgeon's defeat in such cases was due to an insufficient diagnosis of the topography of the fistulous tract, Dr. Emil Beck of Chicago conceived the idea of filling the tract with a substance of high resistance to the Roentgen ray, which could be carried into all parts of the tract, suspended in a liquid which would quickly solidify and so remain in position while being skiagraphed. Bismuth having been used successfully for X-ray pictures of the stomach, he chose a mixture of bismuth subnitrate in yellow vaseline for injections into these sinuses. The picture of a sinus treated in this way and viewed through the stereoscope gives not only a perfect outline of every minute ramification of the sinus from beginning to end, but the perspective obtained by the stereoscope affords an exact means of tracing the sinus in relation to the bony structures in every direction. It is easy to see how such a method of diagnosis gives to the surgeon absolute command of the situation in any operable location.

The formula for this injection, known as No. 1, is as follows:

Bismuth Subnitrate....Gm 30 $\frac{3}{4}$

VaselineGm 60 $\frac{3}{4}$

Mix while boiling.

The most remarkable part of this discovery was yet to come, when two months after the first injection was made, the patient presented himself with his sinus of two years duration completely closed and apparently restored to normal health. The single injection in this case was made in March, 1906, and in January, 1908, when Beck described his discovery before the Chicago Medical Society, the man was still perfectly well. At that time fourteen cases were reported,* a few of which are given here in epitome:

No. 1.—Psoas abscess pointing in Scarpa's triangle and extending up to body of the third vertebra. One injection March, 1906. Closed in a few days. Bismuth absorbed after two months. Well 2 years afterwards.

No. 2.—Tubercular knee joint. Three sinuses of six years duration, persisting after four radical operations and a course of Bier's hyperaemia. Closed after four injections at weekly intervals and well one year after the last one.

No. 3.—Empyema. Discharging 3 ounces of fetid pus daily eight months after resection of two ribs. Ten daily injections of Formula No. 1 and one of Formula No. 2 closed the fistula. Bismuth nearly all absorbed after two months.

No. 4.—Hip joint. Sinus for fifteen years persisting after fourteen operations, the last being a most radical one done by the late Prof. Senn six months prior to first injection. The skiagraph showed the fistula to originate in the acetabulum. Closed after ten injections of No. 1 paste to which 1 per cent of formalin was added, and used every second day.

No. 5.—Fecal fistula. From drainage of gangrenous appendix abscess. Secondary operation four months later left a small sinus discharging pus and gas

*Journal American Medical Assn., Mar. 14, 1908.

Illinois Medical Journal, July, 1908.

and a little fecal matter. This was treated for six months with silver nitrate, etc. Skiagraph showed a cavity two inches in diameter underneath the abdominal muscles. One injection closed this fistula, and it was still closed one year thereafter.

No. 6.—Resection of tubercular kidney. Sinus discharged for nine months. Three injections per week for three months resulted in closure.

No. 7.—Tuberculous osteomyelitis of the femur. Following a football injury sinus remained for ten years, during which time seven operations were done, including excision of the hip joint. One injection for diagnosis, and sinus remains closed one and a half years thereafter.

In the *Lancet-Clinic* of Cincinnati (Sept. 26, '08), H. H. Hines of that city reports a series of eleven cases treated with bismuth paste, according to Beck's method, with very gratifying results. Two of these cases, which differ somewhat from those quoted from Beck, may be mentioned here.

No. 1.—Fracture of left femur. On removal of cast from thigh and leg a slough the size of the palm of the hand was present on the antero-lateral aspect of the leg, midway between knee and ankle, and involving soft parts down to fibula. This partially healed under ordinary treatment until a sinus about six inches long remained which discharged pus profusely. This closed completely after three injections of No. 1 paste, and there were no signs of redness, swelling, pain nor tenderness.

No. 2.—Fracture of olecranon process of right ulna. Infection of elbow joint and peri-articular tissues followed wiring operation. Several subsequent operations for removal of wire and dead bone and evacuation of numerous pus pockets in soft parts. Two sinuses were injected with No. 1 formula, which was followed in forty-eight hours by a

severe chill, fever of 104, and sweat. Locally there was pain, tenderness, redness and swelling. Two pockets of pus containing bismuth were evacuated.

For treatment Beck uses Formula No. 1, the same as for diagnosis. In most cases this is sufficient. In some, such as large empyaema cavities, when the body temperature may prevent the hardening of the paste, he employs a formula with a little higher melting point, known as Formula No. 2.

Bismuth Subnitrate..Gm.	30	$\frac{3}{4}$ ÷
White Wax	5	Gr. 75
Soft Paraffin	5	Gr. 75
Vaseline	60	$\frac{3}{4}$ ÷

Mix while boiling.

This formula is also used as a late injection in sinuses which are yielding slowly to the No. 1 paste. One per cent of formalin has been added in a few cases. Also strontium salicylate has been tried in connection with subsequent exposure for two minutes to the X-ray in the belief that this substance increases the radio-activity of the bismuth and thereby stimulates granulation. Beck is of the opinion that the composition of the paste is still an open question. Some other chemical may be found which will be superior to the bismuth.

The method of injection is very simple, but it implies the use of all aseptic precautions. The sinus is prepared by expression of its contents by gentle manipulation or dry packing when possible and thorough cleansing of the surface with alcohol. No irrigation is allowable. Any sequestra of bone must of course be removed by operation. The paste is boiled over a water bath and taken up in a sterile syringe while being stirred constantly. If too hot the paste may be cooled in the syringe by immersion in water. Great precaution is observed to prevent any water or air getting into the paste or the syringe.

The syringe should be a large glass one with asbestos covered plunger so that it may be dry sterilized. It should have a rounded tip, similar to the bulb of a Valentine irrigating tube, which must be carefully adjusted to the opening of the sinus. The paste is to be slowly injected until the patient complains of pressure. A compress of gauze is quickly applied over the opening and an ice bag on top hastens the hardening.

Injections are repeated at intervals varying from one to five days according to the nature of the discharge. The success of the injection is first announced by the change in the character of the discharge from pus to clear yellow serum. So long as pus appears in the discharge the injections of No. 1 paste are carefully repeated at not too frequent intervals. If the discharge of serum persists longer than a few days, Formula No. 2 is injected and usually a single injection is sufficient. In repeating an injection, care must be used not to exert pressure enough to separate any surface of the tract which may have partially healed.

Beck has met with no accidents such as haemorrhage, sepsis or embolism, but has had one case of metallic poisoning from the use of a large quantity of the paste in the pleural cavity. This may have been due to arsenic or some other impurity in the bismuth. Strangulation has also occurred in a case when a bronchus communicating with an empyaema cavity became deluged with the paste during injection. Intracranial abscess cavities should not be injected for fear of pressure complications. Sinuses from the bile passages, urinary bladder and other secreting organs are not to be injected for obvious reasons. Hine's case, in which abscess formation with symptoms of sepsis followed the injection, shows that there is danger in using the paste in recent infections,

such as staphylococcus or streptococcus.

There are probably several elements of healing involved in the manner in which this bismuth paste operates to bring about the closure of a fistulous tract. In the first place it is injected as a liquid under pressure enough to bring it in contact with the entire surface of the sinus and completely fill it. In this position it hardens, first stimulating healthy granulation and later acting as a transient scaffolding for the formation of connective tissue which is developed from these granulations during the process of absorption of the paste. This principle of obliterating suppurating cavities by bridge-work is the same as that involved in the use of Senn's bone chips, Moorhof's wax plug and Bartlett's filigree of silver.

Not the least important element is the fact that all the ramifications of the tract are reached simultaneously and placed at once in the same favorable condition for healing. One part does not get well while another keeps up the trouble. While the paste virtually consists of an aseptic plug it does not completely seal the cavity so that its contents are pent up during the period necessary for connective tissue to form. There always remains a certain space between the walls of the sinus and the surface of the paste, which acts as a perfectly symmetrical drain for the entire sinus. This principle of symmetrical drainage is important in any form of drainage, and is admirably accomplished here. There is no space left for accumulation and retention of pus.

In a certain way the solidified paste exerts an equalizing pressure upon all parts of the fistula, thus acting as a splint to secure local rest to the tissues. The fate of the paste is the final factor in the healing process. The vaseline, white wax and soft paraffin are first absorbed, leaving the dry bismuth on

the walls of the contracting sinus. The bismuth is eventually absorbed so that no foreign body remains.

In an editorial, the *Western Medical Review* (July, 1908) credits the injection of vaselin-bismuth paste into old tuberculous sinuses for X-ray diagnosis as being the most important single contribution made to the recent meeting of the American Orthopedic Soci-

ety. The method marks an epoch in the diagnosis of fistulous tracts. As a means of treatment it affords a painless, safe and convenient cure for many cases which are not amenable to surgical procedure, such as cutting down on a tuberculous spondylitis for psoas abscess, or in which operation, if possible, would entail a great amount of suffering, a hazardous risk and marked deformity.

INTRAVENOUS INJECTIONS IN TUBERCULOSIS.*

BY C. A. SHEPARD, M.D., NEEDLES, CALIFORNIA.

The method of treating tuberculosis by intravenous injection of tuberculin has not received the recognition I believe it should have. This method, perfected by Dr. Rothschild in Berlin several years ago while studying under Prof. Koch, and later used by him in San Francisco with such marked success, is in my opinion, the most successful treatment we have at our command today.

I commenced using this about a year and a half ago, and my results have been so good that I wished to bring it before the society.

This treatment, like all others, gives better results in cases of the first and second stages, though I will report a case treated in the third stage later on.

As Dr. Trudeau has pointed out, it does not make so much difference what kind of tuberculin is used as does the method of using it.

The specific treatment of tuberculosis by tuberculin is based on the principle of artificial immunization. The exact part played by the antibodies, agglutinins, opsonins, etc., is as yet imperfectly understood, but we know they are part of nature's plans to protect the body against bacterial invasion.

Hollister on the subject of bacterial vaccines says "there are four main re-

sisting forces in the blood against teria and their toxins—bacteriocidal, bacteriolytic, agglutinating and phagocytic."

The organism has two ways of resisting invasion of micro-organisms—first, by specific action of blood serum, being natural or acquired; second, by phagocytosis. Blood has no bacteriocidal, bacteriolytic or agglutinating power on the strypt, staphlo or pneumococci, and while it has some agglutinating power on tubercle bacilli it has no bacteriocidal or bacteriolytic power. The organism must therefore depend almost entirely on phagocytosis for its defense in the case of the tubercle bacillus. Now, it is well known that tuberculin markedly increases phagocytosis given either subcutaneously or intravenously. But this phagocytosis is much more apparent when given intravenously and especially so when combined with atoxyl. Atoxyl has been used to produce this effect by the Germans, in cases of anemia and malaria and sleeping sickness, for years with great success.

In using this preparation I use 1-10 of 1% sol. of tuberculin (old) with 15% sol. atoxyl—one gram of this would represent 0.12 to 0.15 atoxyl. Some writers have reported bad eye

*Read before the Riverside County Medical Society, December 12, 1908.

symptoms, but I have as yet had no trouble. I use an ordinary Sub Q syringe which is marked off by a scale; 1 part should represent 1 m., but this is not quite correct; $\frac{1}{2}$ of a part of 1 line would be 1-10 mg. of $\frac{1}{4}\%$ sol. I fill the syringe to about fig. 5 with a sterilized solution of atoxyl, then the tuberculin and again the atoxyl up to 15 or 20 and inject, using the veins in hollow of elbow. In the therapeutic use of tuberculin the fundamental principle should be to avoid reaction. The best results are achieved when the amount of tuberculin used falls just short of producing a reaction, extending the treatment at intervals no matter how long it takes, gradually increasing the dose as immunity progresses. The results are better and quicker if the injections are given when the patient has no fever, so I generally have the patient go to bed and then commence treatment, but if after a few weeks rest the temperature shows no tendency to go down I commence on about 1-100 mg. After a little experience one can quickly learn how much tuberculin each patient will stand and be governed accordingly.

I have spoken of rest in bed, and this is of vast importance in the treatment of tuberculosis. I know that my results are better in those cases in which I have been able to put them at absolute rest than in those that cannot be kept there for financial or other reasons.

Rest has a beneficial effect on the cough, dyspnoea, fever and the heart. The heart has to bear the brunt of the fight in tuberculosis due to enormous strain to overcome the resistance offered to the pulmonary circulation, and shares also in the loss of muscular tissue, and rest more than any one thing will strengthen it at such a time. Any patient with a temperature of 100° or more should remain in bed until it has disappeared, no matter how long it takes. Then there is the beneficial moral effect

of increase in weight which is obtained more rapidly by rest in bed. Nothing has a better effect on the mental condition of all patients who have been losing in weight than to start to gain, and with that we come to the question of diet.

I do not believe in a fixed diet for tubercular patients, because they are sick too long. It is much better to cater to their appetite and give them a varied diet. They ought to take from 1 to 8 eggs daily and from 1 to 4 quarts milk in addition. If milk disagrees they can use it in some changed form—as Eskay's—Horlick's Malted. A well-nourished system is naturally more resistant than a system that is underfed and a patient is more cheerful and more willing to carry out orders as soon as he notices the continued improvement in weight.

As to internal medicine, I use the sodium ichthyol in capsules, giving from 20 to 200 m. daily, it has a decided influence in increasing the appetite, keeps down the temperature, lessens cough and expectoration and maintains a regular action of the bowels.

The maximum amount of fresh air and sunshine that a patient can absorb in twenty-four hours is a valuable aid to any line of treatment, and in no other country is it as easy to live outdoors the year round as it is here. I instruct sleeping out the year round if possible, but if circumstances or surroundings prevent and they are compelled to be inside, to have the windows and doors open; to have the sunniest and airiest room possible, and never occupy a room heated by hot-air furnace; no bedfellow under any circumstances, and no roommate if possible.

Above all, the patients must have confidence in their physician, to feel what they are doing is for their own good, depriving themselves if need be, but to be cheerful and contented and not be impatient to get well, and to remember

that to no half-hearted or light-minded seeker after health will healing come, but to keep working hard for it by obeying directions exactly.

I had under this treatment last year ten cases—in seven of whom all symptoms disappeared—including absence of bacilli; three are still under treatment with twelve new cases, all of whom are responding nicely. I will report a few of these.

Case 1—W. C. G., age 32, weight 125 pounds, no family history; trouble commenced with hemorrhage May, 1906; had been losing weight; much cough and expectoration; examination sputum showed presence of tubercle bacilli, large number of tissue cells. Physical examination showed dullness over left apex and upper portion middle lobe left lung, rough bronchial breathing and rales. Commenced treatment February 4, 1908, 1-20 mg. tuberculin and 15% sol. atoxyl; ceased treatment in August, 1908; weight 149; no cough or expectoration, breathing a little harsh over apex left lung; in excellent condition present time.

Case 2—F. E. M., age 35, civil engineer, no hereditary element. October, 1907, an attack of pleurisy lasting three or four days, two days later haemoptosis; examination of sputum showed tubercle bacilli present; physical examination showed rough breathing in both apices and dry rales. Commenced treatment November 10. February 4 sputum showed absence of bacilli and tissue cells; discharged cured May 4; gain in weight 32 pounds; condition normal present time.

Case 3—H. U. G., residence Humboldt County, age 40, weight 128, previous history negative; pneumonia left lung November, 1907; abscess in same lung January 5, expectorated one cupful green pus; physical examination showed marked consolidation over apex lobe left lung and lower portion of right posterior mucus and coarse rales; tem-

perature 99, resp. 22, pulse 110. Examination sputum showed tubercle bacilli, large number of streptococci and some bacillus pyocyaneus and tissue cells; commenced treatment November 6. On May 17 called home suddenly; weight 141; no cough, only in morning; expectorating one-sixth of what he did on starting treatment.

Case 4—J. H. C., New York, father died of tuberculosis; young man twenty years old; trouble started with grip followed by cough, expectoration, night sweats and two attacks haemoptosis. Patient examined by Dr. Rochester, Buffalo, and declined treatment; apices of both lungs badly affected, morning temperature 101-102, afternoon 103-104; large cavity in left upper lobe, normal breathing in right middle and lower lobe; patient sent to San Francisco June, 1907, put to bed for three months under usual treatment, returned to Needles December, 1907; no fever, dyspnoea or night sweats; weight increased from 106 to 134; has taken treatment since with further gain in weight to 147; was examined by Dr. Rochester in Buffalo in August last and in the doctor's words pronounced a "wonderful result." I quote this case as it is the most advanced case that has been treated with tuberculin and atoxyl, being in the beginning of the third stage when results are practically nil.

I treated last year nine cases; five are at work and free from symptoms at present time; one called away, so don't know present condition; three are still under treatment, with ten new cases this fall, all of which are responding nicely.

Now, in conclusion, if we can get our cases in the first and second stages, place them at absolute rest, fresh air, good nourishing and varied diet with ichthyol internally and tuberculin and atoxyl intravenously the majority of cases can be cured.

Any physician with a little experience can use the intravenous method and if

you can once gain the confidence and enthusiasm of the patient you cannot help but obtain good results.

Just a word about the latest cases. We often have patients coming to us with slight cough, loss of weight, impaired appetite, and who will show a reaction to tuberculin, and yet examination of sputum shows absence of bacilli. This one thing—depending on the finding of bacilli in the sputum has in the past caused numerous errors in diagnosis and unnecessary delay in starting treatment. In every case the sputum should be examined, but yet too much dependence must not be placed upon results obtained—a case of pulmonary tuberculosis may show a negative sputum, just as a case of nephritis may

show a negative urine. It is entirely possible to make a diagnosis of pulmonary tuberculosis before the condition is suspected by the patient or his associates, and thus a greater responsibility is placed upon us to recognize these latent cases.

Now, you will see that the number of my cases is small and the time of observation short, but this is only intended as a preliminary report. I hope by this time next year to be able to report a great many more cases treated by this method. But these few cases and results confirm what Dr. Rothschild reported in a paper read before the State Medical Society of California and the many cases I had the pleasure of seeing in his practice.

ECLAMPSIA, TOXAEMIA AND URAEMIA OF PREGNANCY.*

BY FRANCIS H. REDEWILL, B.S., M.D., PHOENIX, ARIZ.

Eclampsia is the main subject of my paper, especially to mention the aetiology, pathology and treatment of this disease. The other, toxæmias, and especially uraemia, will be touched on only so far as they have a bearing to and association with eclampsia.

Zweifel says very truly that "Eclampsia is a disease of theories." Ever since the time of Blunreith and Zuntz, sixty years ago, hundreds of more or less scientific theories have been offered to explain this disease of pregnancy. Lever was the first, in 1843, to identify it with nephritis, and several monographs followed claiming the kidney to be the main cause. Some of the older theories were those of Spiegelberg, who claimed that the superabundance of ammonia carbonate in the blood was the cause; Traube and Rosenstein, who claimed that anaemia and oedema of the brain induced eclampsia; and Delore and Rodet, in 1884, were sure that

bacterial invasion, while Suelwig and Savor, a little later, thought that carbonic acid induced the convulsions.

Bouchard, in 1887, wrote on "Seigneur l'auto-intoxication" and was thus the first to touch on the modern idea of the subject: Auto-intoxication, a heaping up of poisonous substances in the system during pregnancy, which induce an increased toxicity of blood serum.

Then sprung up many theories in the literature first, to explain where the poisonous substance comes from, and second, the chemical organic nature of this substance. Schmore, in 1893, wrote a monograph and offered the theory that the thrombotic processes seen in many of the organs were made possible by action of fibrin ferment set free from placental cells in the maternal circulation. Bouffe de Saint Blaise pointed to the alteration in the function of the liver, which, he said, "fails to

*Read before the Arizona Medical Association, April 28, 1908.

render innocuous certain poisonous products of metabolism during passage through it—a hepato-intoxication—where when there is but slight poison, the patient merely suffers from nausea, when marked secondary renal changes are affected causing a still further retention of the poison,” producing a vicious cycle. Ehling and Drenst, and and hosts of others since, hold that the foetus has entirely to do with the production of the poison, and that the mother cannot cope with the increased work due to the elimination of products of foetal metabolism. To back up this idea of foetal origin of the toxine, Wilke, Noyen, Schmid and others describe cases of the child at birth having convulsions when born of an eclamptic woman. At first glance this would seem to be very strong evidence in favor of the foetal origin of eclampsia; but we have clinical and laboratory evidence that will clear the foetus of any such accusations. Many cases of hydatiform mole have been reported, the woman bearing such a mole having eclamptic convulsions, and here the effects of any foetal influence can be totally ruled out. Moreover, numerous investigators, in the past three years especially, have reported that the placenta of eclamptic women, when used as the glycerine extract, or powdered, and injected in animals, are in most cases highly toxic; whereas the same preparations of placenta of healthy women show no more toxicity than that produced by any inert organic foreign body. Thus we must accept, as reliable investigators have reported, that the placentas of eclamptic women are highly toxic in a great majority of cases. Children of eclamptic women, dying of traumatic injuries received at birth, do not show this toxicity when portions of their organs are similarly injected into animals. We who do experimental work must certainly give an ear to expert investigators who give a

warning of the unreliability of the results of organic foreign body injection in animals. Nevertheless, where extracts of uniform strength are made, careful asepsis is followed, and a large number of animals utilized, if the results are uniform, they certainly bear a great deal of weight. You notice, gentlemen, I stated a minute ago that in the “majority of cases” the placenta of eclamptic women proved toxic. It is my purpose here to report experimental work done which demonstrates quite conclusively that in *every case* the placenta of eclamptic women proved highly toxic. To give briefly the experiments: We were able to obtain the placenta of five eclamptic women. Minute diversions were made of the placenta under the dissection “scope.” Portions were taken from the maternal surface, the foetal surface and the body of these organs, and all performed under aseptic precautions. Definite glycerine extracts were made of weighed portions of placenta with measured volumes of glycerine. Recorded amounts of the extracts were injected into guinea pigs, the pigs being labeled as to amount of injection and portion of placenta used. The results were as follows: Pigs injected with foetal portion of placenta showed, in 70 per cent. of the cases, no toxic effect with from ten to ten times the unit dose. Pigs injected with the portion of the body of the placenta that contained elements of the villi—especially the covering of the villi—the syncytium—showed extreme toxic effect with one unit dose of extract *in every case*. On every case where we were positive that the extract contained portions of the villi, one unit of the toxine killed the respective guinea pigs (fifty in number) in from two hours to two and one-half days. This appears to me to clear up an important point. We can accept, under the circumstances, the syncytial theory of the origin of the toxine of eclampsia.

We all know that, in healthy pregnant women, decidual islands—that is, masses of cells in the blood of the placental circulation of the mother—may be carried by the blood stream and be lodged in the vessels of the different organs. In child-bearing women who have died from other diseases, we can find in the lungs, liver, spleen and kidneys, these portions of placental villi lodged in the smaller vessels forming emboli and excluding the vessels.

Now to refer to Ehrlich's side chain theory, we can form the following according to Branson: An organism has the power to produce anti-cells or anti-bodies which have the power to prevent excessive proliferation of these foetal cells or chorionic elements, and thus to keep a cytolytic equilibrium. Morehand believes that, normally, the syncytium exercises an influence in determining the nourishment of the villi by the maternal blood, and that normally the foetal blood is of minor importance in supplying the villi with nourishment. Now, since it is known that the villi are carried by the blood, Veit and Opitz believe that the syncytium covering these villi is dissolved, to some extent, in the maternal blood, producing syncytic—toxine. Normally this is counteracted by the anti-bodies produced by the blood. In eclampsia there is a lack of these anti-bodies. Looking at sections of placenta under the microscope we can see in the region of the syncytial covering of the villi, strands of fibrin—canilized fibrin—which is no doubt produced by a process of obliterative endarteritis in the distal ends of the villi, with degeneration of the tissue, giving rise to one ferment theory origin of the toxine. Though we thus know, with a good deal of certainty, where the toxine arises, it has as yet not been determined exactly what the offending substance is, or by what process it is produced.

Branson, in a late article, sums up

the eclamptic aetiology by saying that eclampsia is caused by the failure of the syncytium to perform its histologic, physiologic, and biochemical functions.

PATHOLOGY.

Beginning with Sever and Rayer and looking through all the writings on the subject to the present articles of Williams, including those of Prutz, Hughes, Carter, Subarsch and Shmore, Pels, Lusder, Winckler and Knapp, we will notice that all these men say that a nephritis is found in nearly all of the eclamptic cases, though Schreder and Chapentier demonstrated that such nephritic decisions need not be present in these cases. Schmore, in his monograph, lays great emphasis on the marked lesions of the liver. About the time of Schmore's article (1893) and since, there has been a great deal of discussion as to the predominating lesion of eclampsia. The Germans and the French took sides. The Germans thought the kidneys were the main seat of the lesions; the French thought the liver had the most prominent lesions. Today the swing of evidence seems to point to the liver as the organ of the most paramount importance, and not only in eclampsia, but also in the toxæmic type of pernicious vomiting of pregnancy, and also in uraemia. True, sections under the microscope, of uræmic cases, may not show such marked changes in the liver as in the kidney, yet strong evidence goes to show that the malfunction of the liver is the primary cause of the kidney lesions.

To prove this: The liver makes bile and glycogen and stores the latter and iron. It also makes urea out of ammonium salts which probably reach the liver in combination with sarcolactic acid, or as lactate of ammonium. The liver forms most all of the urea, has a controlling action on toxins, and it is this organ that allows a larger dose of a drug to be tolerated by the stomach than when given hypoder-

mically. "In other words," as Osborne says, "the liver is our Pastuer filter and the blood leaves it standardized." If the liver is diseased urea is diminished and ammonium carbonate remains in the blood. The liver cells prepare the decomposition metabolic products for kidney excretion, and if they do not prepare them perfectly, the kidneys are irritated and disturbed by their effort to excrete substances that are not chemically perfect for such excretion. Hence, malfunction of the liver will, sooner or later, cause irritation, chronic inflammation and pathologic kidneys. Thus we see why, in eclampsia, there nearly always exists a nephritis, though the liver shows the primary lesions. Stone, of Washington, makes the sweeping statement that the lesions of the liver and kidneys in general toxæmia, eclampsia and uraemia of pregnancy are the same—the difference is only in degree. But that is putting it too strongly. For instance, let us look at the liver in eclampsia. Here we see the necrosis of cells is in the periphery of the lobules which is the conspicuous feature, and this is associated with fibrinous capillary thrombi. On the other hand, in general toxæmia of pregnancy like in acute yellow atrophy, though more intense in the latter, there is necrosis in the center of the lobules extending outwards. In uraemia there may be a double area of slight cellular atrophy of liver cells, one in the center of the lobule, the other in the periphery with apparently normal liver tissue between.

The part that the liver takes in production of eclampsia is this: The hepatic organ, during pregnancy, is the seat of an infiltration of fat in the central segments of the acini, associated with deficiency of glucogen. There is stagnation of bile, consecutive deposits of pigment in the interior of lobules, dilatation of bile capillaries, central vein and afferent capillaries. When additional irritants superimposed from in-

toxication, resulting from ferment in the placenta, exists, the liver is taxed beyond its power of endurance, and the syndrome of eclampsia results, with the characteristic pathologic findings in the eclamptic liver. (See Hofbänder.)

The kidney picture in eclampsia is an acute nephritis where no pre-existing nephritis existed. There is a degeneration of the parenchyma, especially of the glomeruli and also of the tubules. With long-standing toxæmic condition the kidneys show parenchymatous changes with increase in fibrous tissue.

The brain shows interesting changes with 42 per cent. oedema of the brain of Prutz's cases, 35 per cent. hyperaemia; 13 per cent. apoplexy and 10 per cent. normal.

Leaving organic lesions, a most important phase, we know, in the pathology of eclampsia is the study of the urine. To determine the activity of the liver, Strauss' levulose test is of greatest help. If glycosuria occurs with ingestion of less than 60 gm. of levulose we know the end of expectant treatment in eclampsia has arrived. On the other hand, an estimate of nitrogen excreted in the urine in twenty-four hours seems to be the surest indication of the kidneys' ability to functionate. Now, too much stress must not be placed in the search for and finding of albumen and casts. We must remember that serious nephritis may be present and repeated examinations of urine show no casts and no albumen; although at any examination, a series having previously been negative, large amounts of albumen and all kinds of casts may suddenly appear without apparent cause. It is only the persistent albuminurias and persistent finding of casts that show there is a nephritis. Intermittent findings, or occasional findings, may show only kidney irritation. (See Osborne.) Osborne of Yale states that centrifuged urines will often show hyaline, and sometimes granular casts in normal in-

dividuals with normal kidneys. Thus, we must depend upon the urea determination in the toxæmias of pregnancy. (Display urea charts.)

TREATMENT.

In Sippel's article on treatment of eclampsia he claims that the eclamptic condition is a primary lesion of the kidneys. The kidneys are swollen, intracapsular pressure is high, and he advises decapsulation of kidneys and also slitting of kidney substance in glaucomatous condition. Though his idea of the ætiology appears incorrect, yet with the operations he thus performs, he has been getting good results, and, at all events, it is a new and novel idea in the treatment of eclampsia.

In the general treatment of eclampsia we must remember that when the mother recovers from eclampsia she does so by nature of profuse elimination, while when she dies from eclampsia it is from exhaustion of the nerve centers with high temperature, and paralysis of the vasomotor, cardiac and respiratory centers. First, there should be a careful examination made, noting pupils, pulse tension, foetal heart sounds, uterine contractions, chest of mother, and gas in intestines; and finally, vaginal examination to determine the degree of dilatation and effacement and softness of cervix, condition of membranes, position, presentation, and relative dimensions. To rush over briefly some minor points: Flushing of large intestines recommended. Hot pads, hot water bottles, cloths wrung out of ice water and applied to forehead. Davis recommends veratrum viride hypodermically for persistent high pulse tension; 10 min. doses for three doses, given hourly. To stimulate patient an ounce of whisky by rectum; salt solution every three or four hours; digitalin for the heart, strychnine and atropin if pulmonary oedema and heart failure are threatening. Davis also recommends the continuous skillful in-

halation of oxygen during eclampsia and after delivery. At the outset of the attack, one to three drops of croton oil in olive oil is very useful to induce free catharsis.

Several questions regarding treatment arise here. First, when should the uterus be emptied? This much we will probably all agree to: Effacement or shortening of cervix, tissues soft, dilatation two-thirds complete, engagement of presenting part and active uterus, demand as prompt delivery as possible. If there be no dilatation, cervix rigid, and the woman be in a critical condition, much controversy exists as to how to proceed. To sum up all the arguments and take sides with Williams in the decision, we must say this; if our laboratory methods for ammonia, urea and levulose tests indicate a high toxicity of the patient with no response from eliminative treatment, we dilate the cervix with forceps, use a Champetier de Ribes' bag; finish dilatation with Harris' mansever; if this be impossible, either use the Duressen's deep incisions in the cervix and dilate, or under rigid asepsis perform caesarean section and thus extract the child and placenta.

Another question is that of using chloroform and morphine. The weight of evidence goes to show that we should not use chloroform for any extended length of time as in expectant treatment. As Hofbauer states, the anaesthetics heap injury on the already diseased parenchymatous organs and offer less chances to the patient for recovery. This has been abundantly proven by the great mortality following the continued use of chloroform in expectant treatment with acute recent lesions found in the parenchymatous organs. In liver malfunction, morphine is badly tolerated and should be restricted or used very moderately.

Lastly, though we realize the practical difficulty of inducing patients to submit to venesection, that operation confronts

us in a great many of the cases. Davis says contracted pupils, high tension, dusky color, tendency to coma, etc., suggest removal of four to eight ounces of blood, followed by intravenous saline infusion, quantity directly proportional to heart's vigor. Williams holds that even a low tension of blood pressure is not a contra-indication to venesection and that when three hundred to five hundred Cc. of blood is taken, one-eighth to one-fourth of all the poison in the patient's body is removed. Osborne and a host of other writers claim that venesection should be performed in most cases, as it has been shown that an ounce of blood will remove more toxins than eight or nine times that amount of fluid faeces or than quarts of perspiration. (Osborne.)

SUMMARY.

1. By our experiments it is found that the toxine of eclampsia is produced in the region of the villi of the placenta.

2. The syncytial theory of Morehand as to origin of toxine is most tenable. The toxine substance of eclampsia is not known.

3. The pathological lesions of eclampsia are primarily necrosis of the periphery of the liver lobules with sec-

ondary lesions in the kidneys and brain.

4. In pernicious toxic vomiting of pregnancy, like in acute yellow atrophy, but less intense, the lesions are principally in the center of the liver lobules.

5. Acute uraemia of pregnancy, though of kidney origin, is indirectly produced by torpid activity of the hepatic cells.

6. In determination of kidney and liver activity, the urea and ammonia quantitative tests are far more important than the searching for casts and albumen.

7. To determine, directly, the liver activity, Strauss' levulose test is recommended.

8. In eclampsia, with soft dilated cervix, the uterus should be emptied at once. With hard, non-dilated cervix, depend upon laboratory as well as clinical evidence to determine condition of patient, and if in critical condition, forcibly dilate and extract, or under asepsis, perform caesarean section.

9. Anaesthetics and morphine should be used sparingly.

10. Venesection should be performed in most cases, low pulse alone not being a contra-indication, (Williams) and hypodermoclysis, administered.

CLIMATOLOGY OF THE SOUTHWEST.

BY J. A. MUNK, M.D., LOS ANGELES, CAL.

The arid region of the southwest never has severe storms and is practically free from all weather extremes. The atmosphere is always dry and, even if the summer heat is intense, it is tempered by siccidity and never becomes oppressive. The difference is due to the relative humidity which is often as much as forty degrees, so that a shade temperature of 118 degrees F. in arid Yuma is more comfortable than 90 degrees F. in humid New York. Much

moisture in the atmosphere prevents evaporation which, when combined with heat, causes depression and prostration. The dry bulb thermometer marks the shade temperature and the wet bulb thermometer the sensible temperature. When the dry and wet bulb thermometers stand within a few degrees of each other, as is usually the case in the East, it means that the relative humidity is high, the air heavily charged with moisture and evaporation at a stand

still. When heat is added to the moisture the suffering becomes almost unbearable. Such a condition of the atmosphere not only causes great discomfort but is also the cause of much additional sickness and the number of deaths are greatly multiplied.

In the arid southwest all this is changed. Evaporation is very active, which is nature's method of making coolness and giving comfort. The body becomes a wet bulb thermometer and the moisture which the sweat glands pour out in perspiration over the body evaporates instantly in the dry air and gives a delightful sensation of refreshing coolness and maintains the normal temperature of the body. A hot, humid atmosphere is like a steaming wet blanket covering the body, from which there is no evaporation to cool the excessive heat. It can be endured for a brief time but kills if it is continued too long.

THE SOUTHWEST.

What is meant by the southwest depends somewhat upon the view point. At New York nearly the whole United States is included in the southwest. Leaving the North Atlantic coast and going West by South to Chicago, Kansas City and Denver it becomes greatly contracted, but still remains an indefinite quantity. The real Southwest is found in the extreme southwest corner of the United States and can readily be described by natural metes and bounds. It is bounded on the east by the Continental Divide, on the north by the Colorado Plateau, on the west by the Pacific Ocean and on the south by the Gulf of California and includes Arizona and Southern California.

This region is part of a desert belt that girdles the globe. There are two of these zones, one on each side of the equator, and on a line with the tropics. Arizona and Southern California are included in the north tropic belt where desert conditions prevail.

There is much bright sunshine, few clouds and little rain. The natural rainfall of this region is insufficient to grow field crops, and irrigation, or the artificial application of water to the soil, is necessary to make the land productive. Without rain or irrigation the land is worthless for farming but when water is applied to the soil the desert becomes wonderfully fruitful and almost everything grows that is planted. Great changes have already been made in many places and these desert lands are being rapidly reclaimed and converted to agriculture.

Aside from its surprising fertility the land possesses many natural attractions and a climate that is unsurpassed for healthfulness. The Imperial Valley on the Colorado desert and lying below sea level is one of the lately improved farming sections. Water is taken from the Colorado river by gravity-flow for irrigating the land and nothing like it has ever been known for richness of soil and bountiful harvests. Until a few years ago the land was supposed to be worthless for farming, as in its natural dry state it is almost barren of vegetation.

SICCITY.

Over all the region of the southwest the atmosphere is wonderfully clear, pure and dry. Siccidity is everywhere and is the one factor more than any other that makes the climate different, and curative in many cases of sick and invalid folk. In the lower valleys of the Gila and Colorado rivers the summers are intensely hot but not oppressive, and the winters are delightfully cool and mild. On the high plateaus and mountains some sharp winter weather is experienced but no finer summer climate can be found in any land. By making a few changes during the year of locality and altitude to suit the season it is possible to enjoy perennial spring.

Usually a combined sea coast and sea level country has a damp climate but

on the delta of the Colorado river at the head of the Gulf of California is an exception to the general rule. Here on the coast the air is as dry as it is possible to be in the heart of the desert. At some remote period of time the gulf extended 100 miles farther north than it does at present. The formation of the delta in time cut off an arm of the ocean which became a land-locked sea. In the dry air the water of the lake soon disappeared by evaporation, which left a bed of salt and dry land far below sea level. But few such dry depressions in the earth are found on the globe and are in all cases caused by a scanty rainfall and excessive evaporation. The average annual precipitation of the desert is less than three inches while the evaporation is estimated to be 100 inches. For some unaccountable reason, the atmosphere over this section of our coast which extends inland at about sea level for a distance of 100 miles is as dry as if no large body of water was anywhere near. There is no other spot like it on the continent and, because of its rare qualities of climate, is a natural sanitarium that is different from every other health resort in America.

CHANGING CLIMATES.

In changing climates the object should be to find a place where the climatic conditions are the opposite of the existing environment. The changes that would naturally follow an obedience to this rule is to go from a damp to a dry climate, from a sea level plain to the mountains, and from either extreme of heat or cold to a temperate clime, or vice versa. As dampness prevails almost universally a dry climate is generally needed to counteract the injurious effects of dampness. It is sometimes desirable to change from a low, damp climate to a high, dry elevation, but many persons cannot endure altitude because of the existence of some organic disease. The best such

people can do is to live in a dry climate near sea level. Not every person that needs a change of climate can get it. Some do not know where to go to better their condition, some have not the means to take them, and others who try it only do so in a haphazard manner that does not give satisfactory results. When the advantages of the Colorado desert become better known it will enable many invalids to find just the winter resort they need.

The atmosphere all over the southwest is as pure as nature can make it. The country is new and sparsely settled and the air has not yet become contaminated by civilized man. Neither is it likely that it ever will be much different, owing to its arid state. The pure air is not confined to any altitude or locality but is everywhere, and is as pure and dry at sea level as on the mountain top. The air comes pure from off the ocean, after which it is further refined by the siccidity of the desert.

BAROMETRIC PRESSURE.

The majority of people are best adapted for living in a sea level climate. Atmospheric pressure acts as a regulator of the vital functions. It slows the pulse, rests the lungs, soothes the nerves and is beneficial in all organic diseases. The sedative effect is increased somewhat by going below sea level as on the dry land of the Colorado desert.

Altitude and a diminished atmospheric pressure on the other hand act as a stimulant. As the pressure is lifted all the vital organs take on increased activity. In incipient consumption, anemia and lack of vital vigor a change to a higher altitude is usually advantageous. It deepens the respiration and brings into action the weak and little used air cells of the lungs. Exercise of the lungs is just as necessary as it is of any other part of the body. The hemoglobin of the blood is increased,

which is something that is needed by the anemic.

If the ascent is made gradually no unpleasant effect is produced, but if the change is made too rapidly the sensation is sometimes decidedly unpleasant. A moderate elevation is just the stimulant which is often needed to restore the patient to health. But if there is any serious organic disease, especially of the heart or lungs, a low altitude should be chosen. If a diseased vital organ is goaded beyond its ability to endure it is liable to break down in a fatal collapse. Nervous persons, also, cannot endure a high altitude and are often compelled to seek a lower level to find relief. For this reason many persons who live in high inland cities like Denver and Salt Lake find it necessary to go to some sea coast before recovery can take place.

The range of altitude in the country described varies approximately from 300 feet below sea level, in the Salton Sink on the Colorado desert in Southern California, to 13,000 feet above on the San Franciscan mountains on the Colorado plateau in northern Arizona. This variety of altitude gives an opportunity to change to any elevation desired and yet have the benefit of the driest, purest air that blows.

LIFE ZONES.

The San Francisco mountains in Arizona present in miniature the several life zones and illustrate how climate influences life, both animal and vegetable. In the midst of aridity and beginning with the desert the several zones quickly succeed each other until the entire gamut is run from the Tropic to the Arctic. Altitude takes the place of latitude and the life that is natural to arctic cold and sea level conditions in the far north are reproduced at two miles of elevation in the desert of Arizona. A study of these zones shows the striking effect of climate upon life, and makes this spot one of the most

interesting regions on the globe. The San Francisco mountains are of volcanic origin and reach, in exact figures, an altitude of 12,630 feet. The massive bulk of this volcanic cone supports upon its flanks many square miles of forest, and stands an island of green in the midst of the Painted Desert.

From top to bottom the vegetation consists of different varieties of trees grouped in bands that circle the mountain in successive belts and are determined by the elevation. Starting forty miles away on the desert where sage brush and cactus scarcely manage to exist, the traveler enters at an elevation of a mile and a quarter above sea level the initial zone of scrub. The first trees to appear are the dwarf juniper which increases in size and vigor as they ascend. These soon merge into the belt of pinion, a small nut-bearing pine tree from twenty to thirty feet in height. At about seven thousand feet are encountered the *Pinus Ponderosa* which cover almost exclusively the base of the mountain in an open forest. At 8500 feet the yellow pine disappears and is succeeded by the Douglas fir, the Rocky Mountain Pine and the Trembling Aspen. At 9500 feet this set of trees gives place to yet another, the White Spruce zone, which are associated with the Foxtail pine. At 10,500 feet these trees are transformed into dwarf specimen of themselves, until at 11,500 feet they entirely disappear and naked rock stretches to the summit. In this climb of 8000 feet six zones of entirely distinct tree life have appeared, counterparts of what would have been traversed in a journey from the foot of the mountain northward to the Pole. These tree zones are not on a level around the mountain but dip to the north as a result of sunshine and shade.

During the summer months deer feed on the higher slopes of the mountains, having come up from the lower levels

where they pass the winter. Bear are also found which, likewise, go up and down with the change of seasons. In addition to these are the wild cat and mountain lion, beside a host of smaller mammals like the squirrel and the gopher.

TEMPERATURE AND LIFE.

Dr. C. H. Merriam* camped upon the peak in July, 1889, and studied the habits of the animals at high elevation during the summer months, comparing the various genus and species found there with those living elsewhere in the world. Among other interesting results he found that the survival of species is determined not by the mean annual temperature of a locality; nor by the winter minimum, but by the maximum temperature prevailing during the short summer months. It is in this season that they bring forth their young, and his investigation showed that if the animals were sufficiently warm during the reproductive season it did not matter if it was cold during the rest of the year. Here, then, the fact of a few warm weeks made life possible, outweighing the impossibility of all the other long, cold months. He found that temperature was more potent than humidity, so long as they had any water at all.

The critical time of all animal life is at its birth, and the one factor that is important above every other in starting it right on its earthly career is temperature. After it has been safely inducted into its new environment of an independent life it learns to endure much that is unfavorable to existence, but still manages to live and grow strong under adverse influences. It is remarkable how life, both animal and vegetable, is influenced by its surroundings and how it is protected by instinct. If the climate is not suitable it ensconces itself

in comfortable quarters during the cold season and enters a dormant state of hibernation and sleeps until the right conditions return when it wakes up and again enters upon active life.

ADAPTATION TO ELEVATION.

Another point the presence of the animals upon the San Francisco mountains serves to bring out is, their indifference to thinness of air. The creatures which live on the peak, or which visit it as a summer resort, are members of the same families whose natural home is at sea level further north. The deer are such as are found in the northern part of the United States and the bear are the same as those inhabiting the forests of Canada and Labrador. Changing latitude for altitude cools the habitat sufficiently to meet their needs. But it does this at the expense of air. On the peak they dwell at an elevation of 10,000 feet, where the barometer marks only eighteen inches instead of thirty to which their relatives are accustomed. Yet, in spite of living in atmospheric penury on the mansard roof of the world—for the mountain here is steep—they suffer no inconvenience. Nor have they seemingly changed in organic functional development.

Now, if such barometric change can be borne semi-annually without any special modification of the organism how much more may not be accomplished by accommodation, given a sufficiency of time? Men who gasp pitifully at first learn to endure and finally to embrace a life of elevation. Quito, at 10,000 feet, has a population who live as easily as do their relatives at sea level.*

TUBERCULOSIS.

No class of patients respond more readily to the healing virtues of pure air than do consumptives. As there is no medicinal cure known for tuberculosis,

*C. H. Merriam: Results of a Biological Survey of the San Francisco Mountain Region and Desert of the Little Colorado, Arizona, 1890.

*Percival Lowell: The Sun Dominant. Century Magazine, March, 1903.

pure air, altitude and an out-door life are the only means that can give relief. Advanced cases of the disease are hopeless and cannot recover even under the most favorable circumstances. All that can be done for such cases is to make their last days as comfortable as possible among friends at home. But for the early or incipient cases there is hope, and recovery is almost certain when the proper course is pursued.

It has been found by experience that the climate of the Southwest offers greater inducements to invalids of this class than any other portion of our country. Its benefit is so great that it has become the mecca of consumptives and thousands go there every year in search of health. The warm, pleasant weather admits of living comfortably out of doors all the year. It is excellent for camping and tramping and one who seeks the simple, natural life can find it here to perfection. To be settled in some mining camp or on a cattle ranch is to be well established for a walk or ride over the hills, to breathe deep draughts of pure air and see nature in her unadorned beauty.

It not only benefits the invalid, but is a splendid outing for the business or professional man. A trip out on the desert may include some hardship, but is all the more enjoyable for that reason. After returning home many pleasant hours of reminiscences will be recalled of experiences on the frontier. Dr. Prudden, who is familiar with the desert life, tells about it fetchingly in his book.†

"In the high country the great pines sway and sing in the winds at night and morning. The pinions and cedars on the lower levels murmur fitfully in the breeze. Small lizards rustle in the grass as they whisk from your presence. Prairie dogs here and there chatter at

you as you pass. Now and then in the forest a mountain lion steals away among the pines, or a surprised bob-cat dashes off around the rocks. Deer and antelope still feed in the remoter uplands. The mountain sheep are gone. Bear are seldom encountered. As night comes on the howls and barks of the wily coyote circling far about the camp are weird and mournful. But the great country, stretching away for hundreds of miles, has scarce a human habitation, few wild animals and birds, and these largely of the still kind.

"The nights are always deliciously cool. Altogether the wanderer who does not mind the wholesome sunburn upon the skin, and has a good supply of water, is as free and comfortable and happy as good mortals deserve to be. How far away the great city seems! And for the thousand unnecessary things which we gather about us in our winter thralldom and dote upon, how pitiful are they if we deign to recall them. This is living. We get down to sheer manhood, face to face with the bare, relentless, fascinating old earth. And ever above is the marvelous sky and ever a nameless witchery of the air, making far things strange and beautiful, and more than all else luring the wanderer back to these hot wastes year after year."

THREE THINGS NECESSARY.

There are three things essential in the treatment of tuberculosis. First, there must be plenty of pure, fresh air. Living in a closed house without ventilation is one of the causes favorable to the development of the disease. To get all the good air that is required the patient must practically live out of doors. The climate of the southwest is ideal for an outdoor life. The air is dry and warm, without any sudden or extreme changes of the weather that might give a cold or cause a backset. Living and sleeping thus out of doors in the

†T. M. Prudden. *On the Great American Plateau*. 1906.

open air, or under some slight shelter like a tent, is necessary to give a constant supply of fresh air.

In the second place, the patient must have an abundance of well cooked, nourishing food. He must eat to keep up his strength, and thereby be able to resist the encroachments of the disease. If he has no appetite and fails to eat he will necessarily lose in flesh and strength, and the disease gains a firmer hold upon his vitals. He should not force himself to eat if he has no appetite, but everything possible must be done to coax back the appetite and a relish for food. If a patient holds his own, or gains in flesh and weight, it is a sure sign that he is improving and on the road to health; but when he loses weight he also loses ground.

The third requirement is rest to prevent the lungs becoming irritated. The further the disease has progressed the more important it is to keep quiet. The least exertion or movement is apt to increase the respiration which aggravates the irritation that already exists in the lungs, and the patient is sure to grow worse. The guide for governing exercise is the temperature. If the temperature be normal, or nearly so, gentle exercise may be taken with benefit, but if the temperature rises ever so little, quiet should be enjoined. If due attention be given to the three points named, everything is being done for the recovery of the patient that can be done. If decided improvement has taken place in a tubercular patient he should always remain in the place where he has received benefit. By going back East to the old environment which brought on his disease, he is almost certain to have a relapse, and the disease to return with increased severity with almost certain fatal results. The patient should remain in the new environment that brought him health, and not risk losing what he has gained, and possibly

his life into the bargain, by making a wrong change of climate.

The general good effect of a change of climate is not always realized at once, and may not be seen until sometime after returning home. To change climate occasionally is a good practice, and to take a vacation is beneficial if for no other reason than to break the monotony of routine. Life is apt to be prolonged by so doing, and certainly the relief and pleasure such a change affords more than compensates for the loss of time from business or the money spent.

Other diseases of the **respiratory tract** which are benefited by the dry climate are bronchitis, catarrh, asthma and hay fever.

KIDNEY DISEASE.

Kidney disease has become a very common complaint and seems to be on the increase. Nephritis in some form, albumenuria and diabetes occur with startling frequency. The kidneys are comparatively small organs, but have an immense amount of work to perform. Unless relieved occasionally of their burden of work they are apt to break down. The only relief they can possibly get is through the skin. The eliminating glands of the skin are numerous and never in any danger, because of their number, of being overworked. The skin by its vicarious action can greatly rest the kidneys. Men who take daily physical exercise in the open air and have regular habits are less liable to kidney disease than those who live sedentary lives and eat and drink to excess. Active exercise starts the perspiration which carries off much waste matter from the body that would otherwise have to go by the kidney route. A warm climate favors cutaneous secretions and is thus beneficial in kidney disease. A good sweat is sometimes necessary, and should be indulged in more frequently than it is. If we worried less about the condition of the kidneys and gave more attention to the

function of the skin, it would often be a decided advantage.

Sweating does not always give a pleasant sensation, particularly in a humid atmosphere, but in the dry air of the southwest no discomfort is felt as the moisture which comes to the surface in the form of a perspiration evaporates immediately as it appears. Sweating creates a natural thirst which water satisfies. The water thus taken into the system preferably seeks the skin, rather than the kidneys, as an

avenue of escape. Indeed, while elimination by the skin is in active progress, there is apt to be a scant secretion from the kidneys. This lack of secretion does not indicate any failure of the kidneys to act, but only shows that they are taking a much needed rest while the skin acts for them as a substitute. Anyone who is suffering from kidney complaint should seek a warm, dry climate of which, perhaps, the best type is found in the southwest.

820-22 Security Building.

THE CARE OF TUBERCULOSIS PATIENTS AT THE LOS ANGELES COUNTY HOSPITAL.*

BY D. C. BARBER, M.D., LOS ANGELES, CAL., SUPERINTENDENT OF THE LOS ANGELES COUNTY AND CITY HOSPITAL.

A County Hospital may be likened to one of our tourist hotels, in that its inmates hail from almost every country.

In the matter of securing guests we have, however, some advantages over the hotel. We are not under the constant necessity of issuing circulars to the public to attract our guests, or maintain a bureau of advertising to keep our rooms filled. In fact, the opposite obtains, for the most difficult and least attractive task of hospital management is the daily issuing of invitations to our inmates to vacate their rooms, and make way for the constant stream of applicants seeking admission to the comfortable beds and wholesome bill of fare provided.

Many and varied are the devices and excuses offered why their stay in the wards should be prolonged indefinitely. Many are pathetic, while some are skillfully deceptive and amusing.

Before describing the tuberculosis quarters of the County Hospital, I wish to dwell for a few moments upon the source of supply of patients, which presents a serious and practical problem for you, as citizens of this community, to solve.

We are all in thorough accord as to the sympathetic and humanitarian side of the question, otherwise we would not be assembled here tonight. We suffer a penalty for dwelling in a well-advertised and attractive climate. Physicians in the East for various reasons, legitimate and selfish motives, send patients to this community who should never leave their comfortable homes and the society of sympathetic relatives or friends, to spend their few remaining weeks of life among strangers.

From one of the railroad stations the poor consumptive hies him to a lonely, dark room in illy-ventilated, cheap lodging-house, where he remains until his scanty means for rent and food are exhausted, or he is discovered by a landlord fearful of losing other alarmed roomers and who ushers the poor victim into the street, or telephones for the County Hospital ambulance.

Many times we have been telegraphed to meet these patients at the depot when they have absolutely no legal claim upon the charity of this community. Adjacent county officials think it a joke

*Read before a meeting of the Los Angeles Society for the Study and Prevention of Tuberculosis, December 4, 1908.

to present their indigent consumptives with a lunch and railroad ticket and dump them upon the lap of our Associated Charities, or into the wards and tent-houses of the Los Angeles County Hospital. The Mayors and city officials of far Eastern cities, churches, and charitable organizations will raise a small purse for transportation to our city, with instructions to appeal to the noble-hearted inhabitants upon their arrival for future aid and sustenance. When they die we notify the Eastern relatives, who in turn inform us that their last dollar was donated to the deceased for transportation, and they have nothing left for his burial.

These unfortunate, deluded creatures often wander about our streets expecting each morning to awaken free from cough, strong enough to take up work at the numerous occupations they have been told are awaiting every new arrival in our midst.

These are not exaggerations of facts, but true statements by many I have interviewed upon their arrival at the doors of the County Hospital. For fear we will not receive them, many previous to their departure from home are carefully coached and instructed to say to us that they have been residents of this county for more than one year, and therefore entitled to shelter in our institution.

In past years, numerous cases, upon their appealing to the Associated Charities for aid, have been furnished free transportation and returned East to the places from whence they came.

This naturally suggests the broad and difficult question, of how are we to lessen the ever-growing practice of utilizing Los Angeles county as a dumping ground for Eastern indigent consumptives.

We do not pretend to shirk our responsibility to those who rightfully belong to us, who have obtained a residence and contracted tuberculosis here.

Is it right for the taxpayers and charitable people of this community to go much farther? How shall the increasing expense of caring for foreign indigents arriving in our midst be met? Not until our laws are changed, or new ones enacted, can we hope to be relieved of the present injustice.

Every county in the State should be compelled to provide for all of its own poor, and should not be permitted to foster dependent sick upon their neighbors, and thus at the same time shirk financial responsibility.

Many counties in this State are so selfish they will not provide and support a County Hospital. In some foreign countries—notably Germany—each State is compelled by law to pay the expenses of its poor when they fall sick in another State. In that country every man's registration is recorded and known, and when he becomes a charitable charge away from home he is cared for by the authorities where he happens to fall ill. A bill for his actual care and expenses is sent to his legal residence and must be paid.

Not until our State Legislatures, or the National Government, regulates this matter by law can Southern California hope to secure justice and proper recompense for charity doled out to others than its own needy citizens.

Inhabitants of the counties in New York or Ohio do not move from one to the other for the benefit of their health, or seeking climate, hence those States are not interested in this question as California is. She is yearly paying increased penalty for possessing a health-giving climate.

This brings us to my subject proper: "The Care of Tuberculosis Patients at the Los Angeles County Hospital." Admission is obtained in various ways. Many are sent direct from the Associated Charities or free medical college clinics, where they first appear for aid and treatment. Some come from other

hospitals after their means are exhausted. Many are sent by physicians who become weary of donating their services, and not a few, as has been already mentioned, are taken direct from trains as they arrive. They are supposed to have been residents locally for one year, but when a human being, too sick to work and having no money, applies for help at your doors there is only one thing to do—*admit him*, and do the best you can to aid and comfort the unfortunate one.

Most of our cases can be classed as incurable, or in the so-called second and third stages of invasion. We have eighty beds; every one is occupied to-night. Thirty-five are in wards and used by patients too weak and ill to be cared for in the tent-houses where we have forty-five beds for those classed as ambulatory cases, who are able to walk to their meals. As their strength fails they are graduated to the wards, where many die and others take their places.

We are compelled to crowd too many together for sleep and comfort, but I am happy to announce that this week your Board of Supervisors, realizing the situation, voted to immediately erect a new, modern, and up-to-date pavillion to relieve our present overcrowded and congested tuberculosis quarters.

PINEAPPLE AS A MEDICINE.

The medical value of pineapples has recently been the subject of considerable inquiry among physicians, and in Hawaii experiments have been made to determine something of these properties. It has been found that the fruit of the pineapple contains a digestive principle closely resembling pepsin in its action, and to this is probably due the beneficial results of the use of the fruit in certain forms of dyspepsia. On the casein of milk pineapple juice acts as a digestive in almost the same manner as

By way of treatment, patients are encouraged to breathe in fresh air, given nourishing diet. Comfortable beds in steam-heated quarters are provided; sputum cups are furnished, and their dishes are kept separate in a separate dining-room where they are sterilized in boiling water.

Owing to the advanced stage of the disease in our patients, many are morose and deficient mentally, so that they will not aid themselves in the battle for improvement, or for the protection of others against infection through promiscuous expectoration about the wards and grounds.

The tubercular wards are in charge of a physician who visits them at least twice a day, and may be called oftener by the nurses if necessary.

In closing, there is another subject I would briefly treat upon; namely, the establishment of tubercular pavillions in the nearby foothills for the housing of consumptives by the county.

If the inmates could be limited to *bona-fide residents*, it would be an ideal plan, and has been frequently suggested. In my opinion such an establishment will not be feasible in justice to an already overtaxed people, until other communities are compelled to take care of their own, or are willing to honestly recompense this county for the same service.

rennet, and the action is also well illustrated by placing a thin piece of uncooked beef between two slices of fresh pineapple, where in the course of a few hours its character is completely changed.

In diphtheritic sore throat and croup pineapple juice has come to be very largely relied upon in countries where the fruit is common. The false membranes which cause the closing of the throat seem to be dissolved by the fruit acids, and relief is almost immediate.—*California Fruit Grower.*

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EDITORIAL

DR. FREDERICK T. BICKNELL.

The following engrossed letter signed by seventy members of the medical profession of Los Angeles who are associated with Dr. Bicknell in the California Hospital, was handed to him on New Year's Day:

"To Frederick T. Bicknell, M.D., Our Dear Friend and Colleague: For over a quarter of a century you have been an active and eminent practitioner of medicine and surgery in the city of Los Angeles, and, during the last ten years, you have been the President of the California Hospital, where we have been most intimately and delightfully associated, and, as you are now, at your urgent request, retiring from the Presidency, we, the undersigned, ask you to be our guest at a dinner to be given in your honor as a slight token of appreciation and friendship, some evening at your convenience, during January, 1909."

Dr. Bicknell, who is the personification of modesty, accepted the invitation and the seventy friends sat down with him at one of the California Club's best dinners at 8 p.m. Saturday, January 16.

Dr. E. R. Smith was President of the evening, and Dr. Walter Lindley Toastmaster.

These two, and Drs. W. W. Hitchcock, M. L. Moore, Geo. L. Cole, W. T. McArthur, H. G. Brainerd, Joseph M. King, and others made brief speeches, all complimentary to the guest of honor, referring to him as a friend, a patriot, a surgeon, and to his great work in the organization and development of the California Hospital. John S. McGroarty, the well-known poet, then read a beautiful poem,* dedicated to Dr. Bicknell, eulogizing the physician. Capt. John D. Fredericks, Esq., briefly but eloquently responded to the toast, "Dr. Bicknell as a Soldier," re-

citing how the guest of honor had enlisted when a mere boy at the first call of Abraham Lincoln, and served with bravery throughout the war.

Dr. Granville MacGowan then arose and sprang the surprise of the evening on the honored guest by presenting him with a beautiful watch upon which was engraved "Dr. Bicknell, 10 years President of California Hospital, from his colleagues." The doctor had been, in a sense, on the grill all of the evening, but this presentation capped the climax. He could scarcely speak for emotion, but thanked his friends the best he could and said this watch and the engrossed invitation would be the two bequests he would take the greatest pride in handing down to his grandson.

The evening closed with all joining hands and voices and singing "Auld Lang Syne."

*This poem will appear in the February number of this magazine.

PUBLIC HEALTH AND THE ARIZONA LEGISLATURE.

During the past four months the Committee on Public Policy and Legislation of the Arizona Medical Association has done a considerable amount of work, studying the medical laws of Arizona and trying to determine just what, if any, legislation should be asked for at the coming session of the legislature.

The committee is of the opinion that the less meddling with the laws there is the better; that only where a change seems imperatively necessary should any be asked for; that it is much better to get along with a moderately good law

well enforced, even though it be defective in many points, than to run the great risk of having it altered for the worse by trying to have it amended.

As nearly as the committee has been able to determine, the concensus of opinion among the medical men of the territory is that "An Act to Protect Public Health" of the session laws of 1903, unsatisfactory though it has proven in many particulars, should be left as it is except as regards the sections on "Vital Statistics."

Practically all seem agreed that a strong effort should be made to have a vital statistics law, modeled on that recommended by the Census Bureau and the American Public Health Association, passed at this session of the legislature.

To avoid a great increase in expense the Superintendent of Public Health of the Territory should be made territorial registrar of vital statistics. In other respects the "model law" would be very suitable for Arizona.

As regards an increase of salary for the Health Officers, territorial, county and city, while all are agreed that the present rate of remuneration is pitifully small, those of the profession who have had dealings with legislatures in the past are very skeptical of the advisability of asking for any increase.

Moreover, neither Arizona's population nor her financial position would justify her in attempting to support an ideally complete system of health protection. Fortunately, too, our need of such an elaborate system is not nearly so great as in the thickly populated centers of the East.

The chief need at present would seem

to be a monetary allowance to enable the county and city health officers of the territory to meet annually with the territorial superintendent of public health, at Phoenix, to discuss matters pertaining to the health of the territory.

Much good work has been done during the past two years with limited facilities and a very small expense. It would seem much better to try to increase our efficiency with what means we have, rather than to run the risk of losing all, by asking for what we are not at all likely to get.

Any man, almost, could do good work with a well equipped office; what we need are men who will quietly and without ostentation do the very best they can with the limited means at our disposal.

J. W. F.

ANOTHER VIEW OF OPSONIC INDEX.

It is not always that an editorial in a journal expresses the views of its editors, especially when the subject matter is given by a contributor and does not emanate from the editorial staff.

To correct anyone's judgment on what was said in the last issue of the SOUTHERN CALIFORNIA PRACTITIONER, on the "Value of the Opsonic Index," and without taking issue with Dr. War-

den, it is right to state that it would be difficult to find anyone connected with this journal so enthusiastic over the value of the Opsonic Index.

Those who have done the greatest amount of laboratory work in this country along this line, and given their honest, careful results, fail to find sufficient reason for being guided alone by the Opsonic Index. There is too much error found in personal equation, the index varies quickly and easily under any changed condition of things, and within too short a time to be any true guide. Clinical symptoms and other signs must be more our guide for treatment than alone the Opsonic Index. This view is held by the Americans, Germans and French. It is among the English from Wright's influence that we find the great enthusiasm for the value of the Opsonic Index. A trained laboratory man recently said that he considered the Opsonic Index too unreliable and expensive a procedure for practical use.

In tuberculin therapy, the Saranac laboratory men consider that clinical symptoms and signs are better guides for the dosage than the Opsonic Index, and Dr. Cunningham, in his article last month, has shown a similar feeling existing at Johns Hopkins Hospital.

W. J. B.

EDITORIAL NOTES

Dr. John E. Page has located in Santa Barbara.

Dr. S. A. Ellis of Azusa has returned from San Francisco.

Dr. Henri Apjohn of Yuma has been taking a vacation in Los Angeles.

Dr. Charles Lewis Allen has purchased the practice of Dr. Ralph Avery in South Pasadena.

Dr. John C. Ferbert of Los Angeles has returned from a three weeks' visit to the City of Mexico.

Dr. Charles Lewis Allen has purchased a home in South Pasadena.

Dr. S. J. Hindman, formerly of Santa Clara County, has located in Artesia, Los Angeles County.

The Pasadena Medical Society will hereafter meet on the third Monday evening of each month.

Dr. J. H. McKellar of Pasadena has returned from several months' hospital work in New York City.

Seven million human beings in Great Britain are enduring hardship and want through unemployment.

Dr. C. A. Shepard has prepared to care for a few incipient cases of tuberculosis at Needles, California.

Dr. H. T. Southworth of Prescott visited Livermore, California, on professional business early in December.

At the recent meeting of the Santa Barbara County Medical Society, Dr. W. L. Holt delivered an address on "Pure Milk."

The Pima County Medical Society held its annual meeting at Tucson Tuesday, January 11. The officers for 1909 were elected.

Dr. H. T. Southworth of Prescott has moved his offices to the new Masonic Temple where he is very pleasantly situated.

Dr. J. K. McDonnell of Fossil Creek, councilor of the Arizona Medical Association, spent Christmas with his family in Prescott.

Dr. Oscar H. Brown, Santa Fe Division Surgeon, Winslow, Arizona, spent Thanksgiving week with his family at Riverside.

Dr. Rexwald Brown of Santa Barbara delivered a public address on vaccination to a large audience in that city on December 18.

Dr. Ross Moore of Los Angeles has returned from a six weeks' visit to the Hawaiian Islands. Mrs. Moore accompanied the doctor.

Dr. D. C. Strong proposes to open a private hospital in San Bernardino.

Dr. W. A. Greene is mayor of the City of Douglas, Arizona, and County Health Officer.

Dr. Albert Ross of Oxnard, California, has gone to the State of Tobasco, Mexico, where he holds a controlling interest in 10,000 acres of land.

Dr. J. M. Armstrong of Los Angeles was run into by an electric car. The doctor escaped by jumping, but his automobile was demolished.

Drs. White, Fleming and Reed of Phoenix were elected to membership in the Maricopa County Medical Society at its meeting of December 22.

Dr. L. W. Lord of Fort Riley, Kansas, first lieutenant, Medical Reserve Corps, United States Army, retired, will locate in Pasadena, California.

Dr. Wm. Freeman, who for a number of years has been practicing in Fullerton, Orange county, is now building in Anaheim, where he will soon locate.

Dr. W. H. Kern, superintendent of the State Hospital for the Insane at Hastings, Nebraska, has been spending a few weeks in Southern California.

The first quarterly meeting of the Maricopa County Medical Society was held early in January. A sumptuous banquet was a very pleasing feature of the meeting.

Dr. S. S. Wood, age 84 years, died in Orange, Cal., November 28. Dr. Wood practiced medicine many years in New Orleans previous to coming to the Pacific Coast.

Dr. J. Raymond Hurley, of the Public Health and Marine Hospital Service, is visiting his father, Dr. J. M. Hurley, in San Bernardino. Dr. Hurley is stationed in Alaska.

Fort Bayard, the U. S. Sanatorium for the tuberculous, nine miles east of Silver City, New Mexico, will expend a quarter of a million dollars on improvements during 1909.

Dr. F. M. Wellington, formerly of Oxnard, has located in Beaumont, Cal.

Dr. P. O. Sundin of Los Angeles has returned from New York City and is located in the Bradbury building, corner 3rd and Broadway.

Dr. Hiram Tibbetts, Assistant Health Officer, represented the city of Los Angeles at a meeting of the Pacific Slope Public Health Association at the annual meeting in Portland, Oregon.

On the evening of January 5 Dr. William Joseph Lewis of Santa Ynez, Santa Barbara County, and Miss Nan-nie Margaret Bonestel of Ventura were married at the home of the bride.

Dr. Geo. E. Tucker and Dr. Thomas E. Griffith of Riverside have formed a copartnership. The former graduated from Rush, class of 1903, and the latter from Boston University, class of 1898.

Dr. Hugh H. Young, chief of the G. U. department of the Johns Hopkins Hospital, is a native of San Antonio, Texas. He received his A.B., A.M. and M.D. from the University of Virginia.

December 10, 1908, there were 59 vacancies in the Medical Reserve Corps of the United States Army. Young medical men with ambitions should write the Surgeon-General of the army, Washington, D. C.

The Ventura County Medical Society has elected the following officers for the ensuing year: President, Dr. G. N. Stockwell; Vice-President, Dr. J. C. Bynum; Secretary-Treasurer, Dr. W. R. Livingston.

Dr. Waldemar T. Lungershausen, formerly of Mt. Clemens, Michigan, has taken the medical superintendency of the Arrowhead Hot Springs, near San Bernardino, California. Dr. Lungershausen graduated from the University of Pennsylvania, class of 1897. He then spent two years in Vienna and Leipzig, since which time he has been practicing in Mt. Clemens.

Dr. J. B. McNally of Prescott, chief surgeon of the S. F. P. & P. Railway, spent a few days recently visiting his mines in the Turkey Creek section. The doctor reports the showing as being most encouraging.

Dr. W. A. Weldon of San Pedro, where he has for years been quarantine officer, is now in charge of the United States Marine Hospital Service in Los Angeles, owing to the illness of Dr. S. D. Brooks.

The Public Health and Marine Hospital Service has decided that California ground squirrels must be wiped out because they spread infection. They also cause losses to agriculture amounting to \$10,000,000 annually.

Dr. C. L. Caven, who has been a leading surgeon in Bisbee, Arizona, for several years, is doing post-graduate work in New York City. He has purchased a residence in Los Angeles and will make this city his home after January 1st.

Dr. E. A. Bryant is about resuming his surgical clinics at the Sisters' Hospital. Dr. Bryant, besides his work at the Sisters', is also one of the principal owners in the Emergency (Crocker street) Hospital, and a director in the Pacific Hospital.

Dr. W. V. Marshburn, of Whittier, California, publishes a statement in which he says he "undertook this work with philanthropic rather than money motives. The more good I will do to the most people, the happier I will be."

In a descriptive booklet of Pamsetgaaf among the pines, recently issued, the names of Drs. R. W. Graham, R. N. Looney, J. B. McNally, H. T. Southworth and C. E. Yount appear as medical directors, in addition to that of the medical superintendent.

Dr. A. G. Shortle is building a \$20,000 sanatorium, for the treatment of the tuberculous, in Albuquerque. Dr. Shortle graduated from the Baltimore

Medical College, class of 1896, and has been practicing at 3610 West 63rd St., Chicago, for the last ten years.

The officers of the Yavapai County Medical Society elected at the annual meeting in December, are: President, C. E. Yount; Vice-President, R. W. Graham; Secretary-Treasurer, H. T. Southworth; delegate to the Arizona Medical Association; J. B. McNally; alternate delegate, R. N. Looney.

Dr. E. Henderson, of Pomona, California, who was called East two years ago to settle a family estate, is now doing post-graduate and hospital work in New York City. Dr. Henderson will resume practice in Pomona about March 1.

The Angelus Hospital Association of Los Angeles met on December 20th and elected the following board of directors for the ensuing year: C. H. Hamilton, H. T. Hubbard, F. A. Hazard, Dr. C. W. Bryson, Dr. J. H. Seymour, Dr. W. R. Severson and A. H. Spellmire.

Dr. L. P. Kaul, formerly of Jerome, who successfully passed the examinations of the California State Board at its December meeting, will have charge of the United Verde Copper Co.'s hospital at Jerome during January, in the temporary absence of Dr. Murietta.

Dr. John R. Whitesides, who has practiced in Chloride, Arizona, for the past eight years, has moved to Kingman. Dr. Whitesides is well known in Arizona having served a session in the territorial legislature. The doctor is now superintendent of health of Mohave County.

We have received the reprint: SPLENECTOMY, report of six cases, together with a statistical summary of all the reported operations up to the year 1908. By the celebrated Southern surgeon, Dr. George Ben Johnston, of Richmond, Virginia. The author is Professor of Abdominal Surgery in the Medical College of Virginia.

D. G. A. Broughton has sold his hospital and practice in Oxnard, Cal., to Ralph W. Avery, formerly of South Pasadena. Dr. Broughton will do a few months' post-graduate work in New York City and then locate in Los Angeles, where he will devote himself principally to surgery.

The Southern California Public Health Association met in Santa Ana December 2. They had an interesting programme and elected the following officers: Dr. C. D. Ball, Santa Ana, president; Dr. W. H. Jones, Long Beach, vice-president; Dr. W. W. Roblee, Riverside, secretary-treasurer.

Dr. W. W. Keen arrived at his home in Philadelphia September 26th, after spending a most delightful year in Europe. Two days after his return home he dislocated his shoulder in an automobile accident. The profession was preparing a great reception, with which the doctor's accident interfered.

The Torrance County Medical Society was recently organized at Estancia, New Mexico. President, Dr. C. J. Amble, Manzano; vice-president, Dr. W. Wilson, Willard; secretary, Dr. D. C. Ottoson, Willard; treasurer, Dr. W. E. Sunderland, Estancia; council, Drs. W. H. Mason and E. G. Boyd, Estancia.

Dr. Eber S. Carlisle of 2813 Downey avenue, Los Angeles, died at his home December 11. Dr. Carlisle graduated from the Medical College of the University of Buffalo, New York, class of 1868, and had been practicing in Los Angeles twenty-four years. He was a general practitioner and commanded the respect of the community.

The Bernalillo County Medical Society recently held their annual meeting in Albuquerque and elected Dr. W. W. Spargo president; Dr. H. B. Kaufman and Dr. L. G. Rice, vice-presidents; Dr. E. Osuna, treasurer; Dr. J. R. Haynes, secretary; Dr. D. H. Carns, censor, and Drs. W. G. Hope and C. A. Frank, delegates to the Territorial Society.

Dr. E. G. Kinne, formerly of Hemet, Cal., has accepted the position of surgeon on the Navajo Indian reservation.

The Esmeralda County Medical Society held its annual meeting in Goldfield, Nevada, and elected Dr. W. T. Liggett president for the ensuing year.

Dr. Ray Ferguson, formerly superintendent of the Hospital for the Insane at Phoenix, is now located at Nogales, Ariz., where he has extensive mining interest.

Mr. A. E. Gillard of the Winslow (Arizona) Drug Store recently received the following prescription: $\frac{1}{2}$ oz. of English sandalwood, $\frac{1}{2}$ oz. of golden seal put it in 2 oz bottle then fill it up with surop dose $\frac{1}{2}$ tee spoonfull 3 times a day use it all then after use it all take 1 oz corn extract and 1 oz of fluid extract of Bucu corn silk and Bucu $\frac{1}{2}$ teespoonful 3 times a day.

Dr. C. L. Caven of Bisbee, Arizona, was, on December 14, the guest of honor at a banquet tendered him by Dr. F. E. Shine and one hundred and twenty other enthusiastic friends at the Warren District County Club. The occasion was the departure of Dr. Caven for Los Angeles, where he has located. We welcome Dr. and Mrs. Caven back to their old home on behalf of many, many old friends.

"An English-Chinese Lexicon of Medical Terms," prepared by Dr. Philip B. Cousland, has just been published in Shanghai. Though the author is an Englishman by birth, he has based his book largely upon the "Medical Dictionary" of Dr. George M. Gould of Philadelphia, a high compliment to American scholarship. Dr. Cousland has recently published a translation of Prof. Halliburton's edition of Kirkes' Physiology.

The San Bernardino County Medical Society has elected the following officers: President, W. P. Burke of Highland; First Vice-President, Hoell Tyler of Redlands; Second Vice-Pres-

ident, T. M. Blythe of Redlands; Secretary, Gayle G. Moseley of Redlands; Treasurer, William A. Taltavall of Redlands; delegate to the State meeting at San Jose, as representative of the local society, D. C. Strong of San Bernardino. This meeting will be held in April.

Drs. H. B. Tebbetts, City Health Office; Thomas B. Wright, Pasadena; H. P. Wilson, Whittier; G. A. Fielding, Sawtelle; Frank Neall Robinson, Monrovia; Carl C. Warden, 826 Security Building; George G. Hunter, 609 Pacific Mutual Building; D. A. Thieme, corner Fifty-fifth and Moneta avenue; Horatio Walker, 5100 Pasadena avenue, were elected members of the Los Angeles County Medical Association December 9, 1908.

Dr. Frank P. Foster, the eminent editor of the *New York Medical Journal*, has been appointed surgeon in the Medical Reserve Corps of the United States Army. In doing this the government recognizes a consistent editorial advocate of reforms in the medical service of the army and an ardent supporter of the policies of the surgeon-general in raising the standard and efficiency of his department. Some friends recently presented Dr. Foster a beautiful sword to wear in his official capacity. Dr. Foster still retains the editorship of the *New York Medical Journal*.

The California Hospital (Los Angeles) had, on the first day of December, 1908, 30 graduate nurses and 62 undergraduates. Of the latter there were Seniors 26, Juniors 16, Freshmen 20. The preliminary education of the undergraduates is as follows: College graduate 1, Normal and High School graduates 2, High School graduates 28, three years High School 3, two years High School 4, one year High School 7, Grammar School 15, Grammar and Commercial School 2. The ages in the Training School were as follows: Over

35, 2; between 21 and 35, 53; under 21, 6.

Dr. J. W. Ross, Medical Director U. S. Navy, retired, and Dr. J. A. Collie, formerly First Lieutenant and P. A. Surgeon, U. S. Army, have established a winter sanatorium for tuberculosis at Palm Springs, Riverside county, California, for patients of moderate means. Palm Springs is a delightful oasis in the Colorado Desert, just inside its western gateway, five miles from Palm Springs station on the Southern Pacific R.R., only 105 miles (four hours) from Los Angeles, 45 miles from Riverside and Redlands. Long noted as a popular winter health resort. Altitude about 500 feet.

Gerald Waring, a San Diego county boy, who was raised at Fallbrook and a graduate of Stanford, and who for the last two or three years has been studying problems of geology and underground waters in Southern Oregon and South-Central Washington, for the geological survey, has been assigned to the investigation of California's medicinal springs. He is now visiting the more important springs, gathering geologic data, determining the origin of the waters and the reason for unusual temperatures, and collecting chemical analyses. All of the information compiled will be assembled in a report that will be published by the geological survey for free distribution.

Officers were elected by the Riverside County Medical Society on the evening of December 15th during a pleasant and profitable meeting held at the home of Dr. A. S. Parker. After the business meeting a most delightful supper was served by Mrs. Parker. The officers elected are all new with the exception of Dr. George E. Tucker, who was re-elected. Following are the officers elected: Dr. T. R. Griffith, President; Dr. H. M. Robertson, Vice-President; Dr. G. E. Tucker, Secretary-

Treasurer. During the evening Dr. C. S. Dickson read a paper on "Hip Joint Diseases," and Dr. Parker on "Knee Joint Diseases." The papers were followed by a discussion in which a number of members took part.

Of the sixty-five candidates before the State Board of Medical Examiners at its session, the highest rank was taken by Dr. R. W. Bowling of Los Angeles, the blind professor of anatomy at the Los Angeles College of Osteopathy. Dr. Bowling has been totally blind for fifteen years. Upon his first application to the State Board for permission to take the examinations, there was some question as to whether his blindness should not act to disqualify him, but he was finally admitted to the class. Dr. Bowling's general average was 89.5 per cent., which, according to Dr. J. Park Dougall, president of the Board, placed him at the top of the list. Only thirty-four of the sixty-five candidates passed the examinations.

The Whitewell Hospital and Sanitarium at Tucson was totally destroyed by fire on the afternoon of December 30. Fortunately all the inmates were saved, though with considerable difficulty. The loss is stated to be \$60,000, less than half of which is covered by insurance. This was one of the most nicely appointed and best equipped hospitals in the Southwest and was a credit not only to Tucson but also to the territory. The hospital was built on the mission style and was peculiarly adapted for the full enjoyment of Tucson's admirable climate. Under the management of Dr. Hobart P. Shattuck, the resident physician, this institution was fast gaining for itself a very enviable reputation. It is to be hoped that it will be rebuilt at an early date.

Dr. George F. Butler of Willmette, Illinois, who is steeped in book lore and belongs naturally to the literati, sends out "A Doctor's Symphony" which begins: "With this New Year resolve

to live without anger, avarice, envy and littleness. Resolve to be generous, liberal and kind; to recognize the extreme value of health and human life and to strive by every means to roll back the tide of disease and death; to give something to shape the million-handed labor to an end and outcome that will leave more sunshine and more flowers to human kind. Let your labor be so ordered that in future times the loved ones may dwell longer with those who love them; open your minds; exalt your souls; widen the sympathies of your hearts; face the things that are now as you will face the reality of death—fearless and alone. Remember that the battle of life cannot be fought by proxy; be your own helper."

Dr. Wm. Martin Ogden died in Pasadena December 3rd after an illness of several months. Dr. Ogden was 67 years old, having graduated from Harvard Medical College in 1865. He afterwards attended the University of Edenburg, Scotland, under Sir James Y. Simpson, the discoverer of chloroform. He afterwards visited the hospitals of Paris and the Rhine during the late Franco-Prussian war. He was a member of the Massachusetts Medical Society and formerly vice-president of the Boston Microscopical Society, and associated with several scientific societies of that city. He was also for many years one of the faculty of the Boston Dental College, where he filled the chair of the principles and practice of general and dental surgery. In December, 1881, Dr. Ogden married Miss Frances Phipps and for many years had a large and lucrative practice in Boston. Impaired health compelled a change of residence and fourteen years ago he came to California, most of the time since then being spent in Pasadena.

The *North American* of Philadelphia has retracted its statement that Dr. S. Adolphus Knopf of New York City had, in an address, advised physicians to

give lethal doses of morphine to hopeless cases of Consumption. The *North American* also compromised Dr. Knopf's damage suit by paying his attorneys' fees, all other expenses incurred, and a handsome sum besides. Out of this the doctor immediately gave \$5000 to Dr. Farrand, the Secretary of the National Association for the Study and Prevention of Tuberculosis, to be consecrated to the cause of the consumptive poor at the discretion of the directors of the association. In the retraction which appeared in the *North American* of November 29, the editor says that "Dr. Knopf has given special study to the work of arousing the public to the necessity of ceaseless warfare on the great white plague. So effective has his work been as a popular educator that he has been called Peter the Hermit of the Twentieth Century Crusade. As an agitator in this line Dr. Knopf is unequalled. He is an original and striking speaker, and has an epigrammatic style of presenting plain facts that carries the lesson home to the masses." The profession of the Pacific Coast congratulates Prof. Knopf on his victory.

The Graphic says: "Occasionally, I get puzzled in placing the Drs. Bullards. Perhaps others are similarly bothered. There are four Dr. Bullards in the directory, although one of them, the capitalist, J. H. Bullard, is not in regular practice. One of the oldest practitioners in Los Angeles is Dr. William B. Bullard, an octogenarian, who will soon celebrate his golden wedding anniversary. He is as rugged and spry in his movements as a youngster of sixty, and can set his son, Dr. Frank D. Bullard, a smart pace in a walking expedition. Frank is a poet and an inventor, in addition to being a mighty good physician. His wife, Dr. Rose T. Bullard, is an authority on surgery. She was valedictorian of her class back East, and is highly regarded by the medical profes-

sion here. There will be two more Dr. Bullards in the city in the spring, when Frank's younger brother, Charles, graduates from Cooper College, San Francisco, where his wife, Margaret, also is a medical student. Both will receive their diplomas then and will come to Los Angeles to practice. Charles, by

the way, is in the railway mail service between Fresno and San Francisco. Out of his salary he has put himself and wife through college, each studying hard for five years. They will rank high in their class and will join the Bullard contingent of doctors in this city next June. It is an interesting family."

SOCIETY PROCEEDINGS

MEETING OF THE YAVAPAI AND MARICOPA COUNTY MEDICAL SOCIETIES.

The annual meeting of the Yavapai County Medical Society was held in the offices of the President, R. N. Looney, at Prescott, on the afternoon of December 12.

A paper on "Some Legislative Anomalies" was read by C. E. Yount in which he pointed out the difficulty a layman has in interpreting the medical laws of Arizona, and how hard it is to determine just what laws on any particular point are at present in force. He suggested that an effort be made to have all the medical and pharmacy laws, at present in force, printed in pamphlet form and distributed to the physicians, druggists and district attorneys in the territory.

In the discussion which followed it was generally agreed that a thorough study of the medical laws now in force be made before any new ones are asked for and a committee was appointed to confer with the attorney-general of the territory as to the standing of certain laws now on the statute book.

A very interesting paper by Paul G. Capps of Crown King on "The Prophylactic and Dietetic Treatment of Venereal and Other Genito-urinary Diseases" was then read. The doctor gave a very full and detailed account of these phases of the treatment of this class of diseases.

The officers for 1909 were elected and December 21 was named as the date of

the first "study class" course of meetings for the winter.

On the afternoon of December 21, the first meeting of the study course was held in the offices of the secretary, H. T. Southworth. Besides a full attendance of the members, the society was fortunate in having Dr. E. S. Godfrey, Jr., of Tucson, the Territorial Superintendent of Public Health, present and joining in the discussions.

The first paper was read by H. T. Southworth, "Suggestions for Improving the Milk Supply of Prescott." Dr. Southworth insisted on cleanliness, from the cow to the consumer, and cooling to 45° F., within two hours after milking and keeping at or below 50° F. until delivered at the consumer's door, as being absolutely essential to a safe milk supply. He pointed out that before the city could control the milk it would be necessary to pass a municipal ordinance requiring every vendor of milk to have a license from the city board of health, and giving this board power to refuse or revoke a license if the production and handling of milk did not meet with their requirements.

This paper was very fully discussed and all were agreed that an inspection of all dairies supplying milk to the city should be provided for and thorough cleanliness in the handling and care of milk insisted on. The majority of the members seemed to think that cooling to 45° or 50° F. in the summer months was impracticable and that if the milk

were kept scrupulously clean and delivered to the consumer during the early morning or late evening hours, that was all that could be expected in this country. The subject will come up for discussion at a later meeting.

The second paper was by John W. Flinn on "Vital Statistics in Arizona." Dr. Flinn referred to the very great importance of reliable vital statistics if an intelligent and effective effort is to be made to prevent disease. He recommended that a determined effort be made to have a vital statistics law modeled on that recommended by the Census Bureau and the American Public Health association passed at this session of the legislature. He recommended that the Territorial Superintendent of Public Health be made chief registrar of vital statistics, but that in other respects this law be passed as it now reads.

In the discussion Dr. Godfrey made a strong plea for increased appropriations for the territorial health office showing by comparison with other territorial offices, how meagre the allowance. He was of the opinion that a generous allowance could be gotten if the profession made a concerted effort for it.

The members of the society who took part in the discussion seemed agreed that it would be well to make a determined effort to have the vital statistics bill passed but were of the opinion that it would be practically useless to try for any great increase in the appropriation at this time.

The Maricopa County Medical Society met at Phoenix on the evening of December 22, in the offices of Dr. Bond. The meeting was called to order by the President, John W. Foss.

The first address of the evening was by Dr. Edward S. Godfrey, Jr., of Tucson, the Territorial Superintendent of Public Health, who was making his first official visit to Phoenix.

Dr. Godfrey stated that as territorial

health officer he had it in mind to attend to the matter of health and sanitation laws in the territory; to amend certain laws and drop others that they might be more in accord with the laws of some Eastern States. He spoke of the need of more definite and complete records of births and deaths in the territory, and recommended that a physician in the city be appointed recorder of deaths, and that he appoint deputy recorders in the different precincts of the city, and that all death reports be sent at stated intervals to the territorial health officer.

The doctor quoted from the Census Bureau reports and other literature to emphasize the necessity of reliable vital statistics reports and pointed out that the burial permit is the only proper basis for a law on this subject. He also quoted opinions favoring generous appropriations for the work of the health office and pointing out the desirability of the superintendent being paid a salary which would enable him to devote all his time to this work.

In closing Dr. Godfrey asked for an expression of opinion on these subjects from the members of the society and mentioned the subject of increase of the salary of county health officers.

Dr. Hughes thought that the salary of county health officers should be raised to \$1000 or \$1200 per year and suggested that they should meet together at stated intervals to discuss health matters.

Several other members took part in the discussion and all seemed to be of the opinion that efforts should rather be directed to a better enforcement of the present laws rather than to add new ones which they could not expect to enforce.

Dr. Redewell mentioned that in a sparsely settled country like this we could not expect health officers to accomplish what they do in the thickly populated Eastern centers.

The Committee on Legislation of the society was instructed to prepare a bill to be introduced at this session of the legislature raising the salaries of county health officers to \$1200 per annum; and such other measures as the committee deem necessary; the committee to report at the next regular meeting.

The matter of having a city ordinance passed by the Phoenix city council providing for the compulsory fumigation of any and all rooms vacated by sick persons at the expense of such sick persons, was discussed, but no definite action was taken.

MISCELLANEOUS

THE WARFARE AGAINST TUBERCULOSIS AND THE RELATION OF TEACHERS THERETO.*

WHY A WORLD-WARFARE IS BEING WAGED AGAINST TUBERCULOSIS.

Pulmonary tuberculosis, known also by the names of consumption and the great white plague, is responsible for one out of every five to ten deaths.

It has been estimated that the world annually offers up more than one million lives to this disease, two deaths occurring every minute.

In the United States, the death roll from tuberculosis every year means the loss of more than 150,000 citizens.

Most of these deaths (about 90 per cent) are adults. The economic loss represented by these deaths means an annual deficit to this country of more than three hundred million dollars. In addition to this vast loss of money to the nation, there is the suffering endured by the victims of the disease and the sorrow of bereaved and often of dependent families.

All this vast amount of death, treasure, suffering and sorrow is occasioned by a disease that can be prevented. The deaths of these citizens and all the loss that goes therewith are there-

fore altogether and entirely unnecessary!

Is it any wonder then, that the civilized world has at last awakened to its responsibilities in this almost greatest of all public health problems, and is determined to exterminate this widespread and unnecessary disease?

The basic facts essential to prevention and cure have been discovered. The task before the world is the application of this knowledge. The call to arms for battle with this great scourage has gone forth to all civilized nations and peoples.

The members of the teaching profession will have an almost sacred part to bear in that warfare.

THE IMPORTANT ROLE OF TEACHERS IN THE WARFARE AGAINST TUBERCULOSIS.

Teachers will have a tremendous influence in the fight against tuberculosis, because the successful eradication of the disease will depend in good part upon the extent to which the rising generation of citizens are taught concerning its prevention and cure.

WHAT IS TUBERCULOSIS?

Tuberculosis is a disease usually affecting the lungs (although bones, glands and other tissues are not infrequently attacked), and which runs most often a slow course of weeks, months or years, being characterized by cough and other pulmonary symptoms with gradual loss of weight and strength and

*This "Leaflet for Teachers" was entered under the name "The Teacher an Important Factor" in the competitive exhibit at the International Tuberculosis Congress at Washington (Sept. 21st to Oct. 12th, 1908) by Dr. George H. Kress of Los Angeles and was awarded the silver medal.

the presence of certain constitutional symptoms.

THE CAUSES OF TUBERCULOSIS.

In 1882, Robert Koch of Germany proved that tuberculosis belonged to the class of germ or infectious diseases by discovering the particular or specific germ that must always be present in the body afflicted with this disease. This germ because of its rod-shape is called the bacillus tuberculosis.

Since then has been proven, also, that the predisposition to the disease exists in those persons whose health for any reason is below normal. In other words, the old idea that tuberculosis was hereditary has been shown to be an error. The most that can be inherited is the predisposition, namely, a weakened body, and a weakened body is far more often acquired than inherited.

THE SPECIFIC CAUSE OF TUBERCULOSIS—A GERM.

The specific or exciting cause of the disease is the micro-organism or germ or bacterium known by the name of the bacillus of tuberculosis. This bacillus is so small that ten thousand placed end to end make only a single linear inch.

Like other bacteria, it is a member of the plant kingdom. This particular germ belongs to the class of parasitic plants. In common with other plants it grows best in soils adapted to its needs. The soil it seems to prefer above all others is the lung tissue of a person whose health or resistance is below par.

The bacillus of tuberculosis is spread broadcast because a single consumptive can cough up in twenty-four hours sputum containing not millions but actually several billions of germs. Under present conditions the care of this sputum is often neglected and as it dries into dust, the germs are blown hither and thither to contaminate not only the air that is breathed but to get on things that are handled or eaten.

Types of this germ are also found

As Surgeons' Hands

are often irritated, cracked and eroded by powerful antiseptics like carbolic acid, corrosive sublimate, etc., any effective means of relief cannot fail to be gratifying.

K-Y Lubricating Jelly,

liberally applied to the hands after "washing up" following an operation, softens and soothes the skin and goes far to counteract the usual irritation.

Sample tube on request.

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among certain of the lower animals, where they also produce forms of pulmonary tuberculosis. Those found in dairy cows are particularly a menace, since milk is a good medium of transmission.

PREDISPOSING CAUSE OF TUBERCULOSIS—A WEAKENED BODY.

Through the discovery of the bacillus of tuberculosis and the elimination of the theory of hereditary transmission must disappear also much of the fatalism with which tuberculosis has been accepted by many persons.

The general groups into which the predisposing causes fall may be said to be bodily weakness or lack of resistance resulting either from hereditary enfeeblement, over-work, under-feeding, previous diseases, vicious habits, over-

crowding or general unhygienic mode of living.

Many infants are born weak. Unless such children can be developed physically, they are apt to give but feeble resistance to disease.

Overwork, mental or physical, whether from necessity or from choice, through the bodily fatigue and weakness induced, is responsible for many infections from tuberculosis. Certain occupations also, like those with irritating dusts, frequent temperature variations, confined positions and so on favor the production of bodily or pulmonary weakness.

Under-feeding, whether from insufficient or improper foods, is another factor responsible for much bodily weakness.

Previous diseases—and particularly in childhood, measles and whooping-cough, and later in life, gripe—often induce a lack of resistance, which through neglect, or in adult persons by too early return to work, place such persons in excellent receptive condition for infection.

Vicious habits, particularly over-indulgence in alcoholic drinks, to the neglect of good food, often results in lowered health and predisposition to tuberculosis.

Over-crowding is a far too frequent cause in the production of weakened bodies. Workshops, schoolrooms, and homes seem often to be constructed to keep air out rather than to let it in. In many rooms, persons are crowded into a limited air-space with almost utter disregard to ventilation. To breathe vitiated air is at all times harmful. An impression prevails also that night air is harmful and that open windows at night are dangerous. This is the contrary of the actual facts. Outside night air is almost invariably more pure than that of a closed room in which the oxygen is being consumed by human beings, lamps or gas.

THE CHANGES PRODUCED IN THE LUNGS BY THE GERM.

The bacillus tuberculosis is a parasitic plant which in pulmonary tuberculosis feeds on the lung tissues. At the same time it casts off substances which not only lessen resistance locally, but which, when they get into the blood and circulation, are largely responsible for the symptoms of the disease.

When the germs get into healthy lungs, even though they gain a foothold, they are usually overcome by the tissue cells and fluids.

But when the germs get into the lungs of persons whose health or resistance is below normal, the germs often gain the victory. The elementary change produced in the lung tissue is a little nodule about the size of a pin's head called a tubercle. This tubercle can break down into an ulcer or small abscess. If many such be near together, a cavity may be formed.

In healing or cure the tubercles, ulcers and abscesses are replaced in whole or in part by ordinary scar tissue, such as that by which wounds on the surface of the body are repaired.

THE SYMPTOMS OF TUBERCULOSIS.

The difficulty of early recognition, combined with the mildness of the discomfort in the early stages, are the factors largely responsible for neglect of this disease by its victims, until a time often so late as to not give much real chance for recovery.

In the beginning all that may be evident is a tired feeling or a tendency to fatigue after work, some variation in appetite, some slight loss of weight and an irregular cough of somewhat obstinate character.

Later on, the loss of weight and cough may be increased, much sputum may be expectorated, fever may be noted, night sweats may occur, and there is increasing weakness.

Still later may be shortness of breath, with accentuation of the above symp-

toms and with or without hemorrhage or other complications. In this third stage is met the typical emaciated, weakened, coughing consumptive.

THE TWO FUNDAMENTAL FACTS IN THE PREVENTION OF TUBERCULOSIS.

These are two, being dependent upon the two causative factors.

The first implies the destruction of the germ.

The second implies the strengthening of the weakened body.

THE DESTRUCTION OF THE BACILLUS OF TUBERCULOSIS.

Most consumptives acquired the disease from other consumptives and this because the latter failed to destroy their sputum, for it is through the sputum of consumptives that tuberculosis is almost exclusively spread.

The problem of destroying the germ almost narrows itself down, therefore, into destroying all sputum.

This is accomplished by having the patients expectorate into paper spit-cups or napkins that can be burned, or into pocket spit-cups that can be easily disinfected, or into spittoons containing solutions like lye or carbolic acid (five per cent), which kill the germ.

Consumptives should avoid coughing or speaking into other people's faces; should have separate eating utensils which are boiled after use; should wear no beards; should bathe hands frequently, especially before eating; and should sleep in separate beds and rooms.

The bed and personal clothing and the rooms occupied by such persons should be sunned and aired as much as possible, for fresh air and sunlight will kill in a few hours the germs that live for months in damp, dark places. Because the germs live longest under such conditions, tuberculosis has also been called a house and a filth disease. Rooms of consumptives should also, when convenient, be fumigated from time to time by formaldehyde or other method.

Regarding infection through milk, it is hoped the time will soon come when all dairy herds will be free from tuberculous cattle.

THE DEVELOPMENT OF THE RESISTANCE OF THE BODY.

The elimination of the accessory or predisposing cause is accomplished by building up the bodily health.

The causes of physical weakness or retrogression were discussed in a previous paragraph and their eradication at the same time indicated.

In a few words, the proposition is to have all such persons breathe pure air only and constantly, every hour in the twenty-four; to eat slowly nutritious foodstuffs; and to obtain all the rest and sleep needed, with just enough bodily exercise to keep the body in good tone.

These are simple rules, but because they are in opposition to the present mode of living of many people, are extremely difficult of adoption. Teachers by word and practice in schoolroom can inculcate these truths with lasting effect on their pupils.

THE CURE OF TUBERCULOSIS.

There is no medicinal or climatic specific or cure for tuberculosis. The basis of modern treatment, and that which is responsible for most of the healing and cures is what is known as the hygienic-dietetic treatment. This is nothing more than the mode of life just mentioned. It can be carried out anywhere. Home climate with comforts and contentment is always superior to far-away climates with straitened circumstances and homesickness.

Tuberculosis is healed or cured by making the blood and tissues richer and stronger. This enables them to resist and often overcome the germs and to repair the damage which has been done.

The tuberculous patient, however, needs supervision by a physician who has made a study of the disease. Complications are constantly arising and the hygienic treatment is not as simply car-

ried out in practice as it is expressed in words. Every consumptive, therefore, should be under the care of a private or dispensary or hospital physician. If he can enter a sanatorium (place of healing) his chances of cure will be increased.

Sure cures in the way of patent medicines, and especially cough medicines containing alcohol or opiates, are dangerous. Valuable time is lost by such temporizing.

Pure air, good food, sufficient rest, a hopeful temperament and supervision by a competent physician—these are the elements that make for cure, just as they are also potent forces for prevention.

In spreading the knowledge of these truths teachers can be of inestimable service in this great struggle.

"THE TEACHER AN IMPORTANT FACTOR."

OUTBREAK OF ILLNESS DUE TO A RAT VIRUS.

A startling example of the dangers of the use of viruses directed against domestic pests has just been reported by Dr. Collingridge, health officer of the city of London. Illness broke out in a business establishment in the city where a large number of persons are employed. Between July 18 and 22, twelve men became seriously ill with severe headache, cramp, and in many cases severe collapse. The severe symptoms lasted forty-eight hours and pointed to some infection. An investigation by Dr. Klein, the bacteriologist, revealed the presence of a bacillus which he regarded as the cause of the illness. Inquiries were made and it was found that the only thing common to the life of the persons affected was that they all dined in the same room and that no one suffered who had dined in any of the four other dining-rooms in the establishment. An offensive odor was noticed in the dining-room in question, and on remov-

ing the boards a large number of dead mice were found in a state of decomposition. It was then discovered that a much-advertised virus had been purchased and placed about the dining-room and in a pantry adjoining. According to the advertisement the virus will cause a fatal contagious disease among rodents, but is harmless to domestic animals and man. Dr. Klein proved that the organism present in the patients was identical with the organism in the virus. The virus was laid about on pieces of bread and it was easy to conceive that mice eating it might carry the contagion about on their feet to the floors, food, shelves, chairs, tables and plates and thus infect human beings. Dr. Collingridge observes that there are several of these viruses on the market, each of which claims to destroy rodents and to be innocuous to domestic animals and man. As the principle of all is the communication of a disease to rodents, it is in his opinion dangerous that they should be purchasable by any or every person. If they are to be used they should be placed about with the greatest precaution and under skilled supervision. A copy of Dr. Klein's report with his bacteriologic findings has been sent to the local government board, urging the desirability of putting restrictions on the sale of such poisons

PAY OF ARMY SURGEONS.

To each rank is attached a fixed annual salary, which is received in monthly payments, and this is increased by 10 per cent. for each period of five years' service until a maximum of 40 per cent. is reached. A first lieutenant receives \$2000 per annum, or \$166.66 monthly. At the end of three years he is promoted to captain and receives \$2400 a year. In two years more he receives an increase of 10 per cent. for five years' service, making \$2640, or \$220 per month. After ten years' service

the pay would be \$2880 annually, or \$240 per month. The pay attached to the rank of major is \$3000 a year, which, with 10 per cent. added for each five years' service, becomes \$3600 after ten years' service, \$3900 after fifteen years' service, and \$4000 after twenty years. The monthly pay of lieutenant-colonel, colonel, and brigadier-general is \$375, \$416.66, and \$500, respectively. Officers in addition to their pay proper are furnished with a liberal allowance of quarters according to rank, either in kind, or, where no suitable government building is available, by commutation; fuel and light therefor are also provided. When traveling on duty an officer receives mileage for the distance traveled, including the travel performed in joining first station after appointment as first lieutenant; the amount allowed is usually sufficient to cover all expenses of journey. On change of station he is entitled to transportation for professional books and papers and a reasonable amount of baggage at government expense. Mounted officers, including all officers of the Medical Corps, are provided with forage, stabling, and transportation for horses owned and actually kept by them, not exceeding two for all ranks below that of brigadier. Horses and horse equipments are furnished by the government for all mounted officers below the grade of major. Groceries and other articles may be purchased from the commissary at about wholesale cost price. Instruments and appliances are liberally supplied for the use of medical officers in the performance of their duties. Well selected professional libraries are supplied to each hospital, and standard modern publications on medical and surgical subjects are added from time to time; current issues of a number of representative medical journals are also furnished for use of medical officers.

Leave of absence on full pay may be allowed at the discretion of the proper

authority at the rate of one month per year, and this when not taken may accumulate to a maximum of four months, which at the end of four years is then available as one continuous leave. Beyond this an officer may still be absent with permission on half pay. Absence from duty on account of sickness involves no loss of pay.

MAN AND HIS FRIEND, THE FLEA.

Passed Assistant Surgeon George McCoy in *Public Health Reports*, November 27, gives the results of some experiments to determine whether fleas from ground squirrels in California would bite man under certain conditions.

"In the experiments the common California ground squirrel, the species in which plague infection has been found, was etherized in a mouse jar, and the fleas were collected and identified. The fleas were then placed in large test-tubes, 4 to 6 fleas in each tube. To feed them the tube was inserted over the forearm of a healthy man. For the first experiment 30 fleas, the majority of which were females, were applied one hour after they had been removed from their natural host; only two fed. Twenty-four hours later but 1 fed. On the third day 4 of the 8 living fleas in 3 of the tubes fed well. On the sixth day only 12 of the 30 fleas were alive; 9 of these fed.

"In the second experiment 5 female fleas were applied to the arm 4 days after they had been taken from the squirrel; none fed. Seven days later, 11 days after being collected, 1 flea was alive, and it fed vigorously.

"These experiments prove that the common fleas of the ground squirrels in the vicinity of San Francisco will bite man under the experimental conditions noted. Whether man is actually infected from squirrels through their fleas is a matter that remains to be determined. The Indian Plague Com-

mission believed that infection from the rat flea was probably through dejecta from the flea. In our experiments it was noted that even during the most prolonged feeding the fleas never ejected blood or feces from the anus."

In response to a letter received from Dr. D. D. Brooks of the United States Health and Marine Hospital Service, Health Officer C. A. Whiting has sent in a communication to the Los Angeles office setting forth the successful efforts of the municipality, aided by the citizens, to wipe out the squirrels in the vicinity of the city.

In this report he states that South Pasadena has practically brought the rodent tribe under subjection, although the war is still being carried on by private owners with poisoned grain furnished by the city. Hundreds of squirrels and gophers have died above ground, and it is believed many more perished below the surface.

SKUNK HYDROPHOBIA.*

In the throes of unutterable agonies, J. W. Scantlin, the trapper who Saturday was brought to the County Hospital a victim of hydrophobia, died at midnight Sunday. The last hours of the unfortunate man were spent under the influence of opiates. These, while they canceled mental appreciation of the terrible suffering, did not keep the victim from tearing hideously at his face in his sub-conscious efforts to gain relief.

Physicians say Scantlin's case of the dread affliction was one of the most rapid and virulent that has ever been known in this district. While the poison was a long time making its manifestation it worked with deadly celerity. A month and ten days passed before the victim noticed anything wrong. Three days after he marked the first symptoms he was a corpse.

The fatal working of the affliction when once it showed unmistakable indications of hydrophobia was quicker than the wings of death. Not till Sunday, the day after he reached the hospital, could the consultation of physicians determine beyond all doubt that the strange actions of the unfortunate man were hydrophobic symptoms. But about midday Sunday seizures of the poison set in and through the afternoon were enacted the most heart-sickening scenes ever beheld at the hospital.

As the grip of the malady grew fiercer Scantlin, nothing short of a madman, dug at his cheek and forehead where the venomous varmint bit him till he ripped the scar from his brow.

In the later stages of the end the poor man at time imitated the antics of a quadruped. Beckoned to, he would trot up to a person as a house dog. The quick death was merciful.

Scantlin will be buried today at 11 o'clock in the Citizens' Cemetery.

The dead man is survived by a wife, two sons and a daughter. One son, W. E. Scantlin, a seventeen-year-old boy, was trapping with his father at the time the skunk attacked the old man. The remainder of the family is in Oklahoma.

Scantlin was fifty-two years old. He had been trapping in this country since 1899.

His son will leave at once for Oklahoma. He brought in from the Scantlin camp the pelts of eighty-seven coyotes and eight wild cats.—*Prescott (Arizona) Journal-Miner*.

OUR FALLING BIRTH RATE.

During a lecture on "Births and Birth Rate" in the course in Sanitary Science at Cornell University recently, Prof. Walter F. Wilcox stated that from 1860 to 1900 the proportion to each 1000 women of child-bearing age in the United States has decreased by 152, or an average of about 30 in each decade. If such a change, he pointed

*See page 458, Southern California Practitioner for October, 1908.

out, were to continue unchecked for a century and a half, there would be no children left. Prof. Wilcox said that the true reason for this fall, is that in modern times births and the birth rate have come to be the control of human will and choice to a larger extent than ever before. Under these conditions modern societies are apparently showing a tendency to increase

from the classes with less prudence of self-control than the average, and thus to eliminate the most desirable lines of descent, somewhat as the monastic system has been said to do. He pointed out, also, that among men who were graduated from college probably one-fourth, and among women two-fifths, remain unmarried, a much larger ratio than in other classes.—*Medical Record*.

BOOK REVIEWS

DISEASES OF THE SKIN. By Henry W. Stelwagon, M.D., Ph.D. W. B. Saunders Company, Philadelphia and London, 1908.

The latest book in English, revised and brought up to date, upon this subject.

The reviewer knows of no more difficult task than that of making the recognition of diseases of the skin understandable in print to the average practitioner of medicine, or student, whether recent or remote graduation. A peculiar mental mold along the lines of that of the ancient Egyptian priesthood, has impelled many writers of books upon the skin and its diseases to so protect their knowledge by burying it in complicated classifications, and useless heaps of words, meaningless to the ordinary intellect, that it seems they have purposely made a subject already presenting real difficulties impossible to anyone who has not taken all of the degrees to comprehend. The author, who was well trained by a good master, has added much to the common stock of knowledge upon these diseases by his own researches. He has now had a long experience as a teacher and understands well how to present his subject to those who know less. Much of the prevailing inability to comprehend the diagnosis and treatment of diseases of the skin arises from ignorance of their lesional forms and of the few, but important, rudimentary preparations by which all applications

to the diseased skin must be made. The author has made a happy and simple arrangement of these. The inflammatory diseases, which are the most important to the general practitioner, are treated very comprehensively, and in a direct and simple manner. The article upon Dermatitis Herpetiformis is the best there is upon this subject. That upon X-Ray Dermatitis is especially conservative in a day when many of those who, skilled or untaught, using radiotherapy, fearful that their competence be questioned, deny its existence. It is our belief that Bier's treatment, which we have found most useful in shortening the course of furuncle and carbuncle, deserves mention. The, at times, magical effects of autogenous vaccines in the abortion and cure of infections due to cocci and bacilli should be accorded more space. In the chapter upon Cutaneous Tuberculosis, a very excellent putting forward of the various remedial measures is made, but one does not see any definite plan of procedure set out by the author for the guidance of those to whom these agencies are not familiar and who are not competent to select or apply a mode of attack. No stress is placed upon the proper method for the use of tuberculin which alone, without phototherapy or radiotherapy, will cure so many cases of lupus.

The photographs and colored illus-

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We take great pleasure in recommending this book to the medical profession.

GRANVILLE MACGOWAN.

ESSENTIALS OF MEDICINE. A Text Book of Medicine, for Students Beginning a Medical Course, for Nurses and for All Others Interested in the Care of the Sick. By Charles Phillips Emerson, M.D., Late Resident Physician, the Johns Hopkins Hospital; and Associate in Medicine, the Johns Hopkins University. Illustrated by the Author. Philadelphia and London. J. B. Lippincott Company, 1908.

The author says: "Frequently the medical students do not learn to separate the important from the unimportant. Our nurses often know a great deal in a general, indefinite, inaccurate way. They seldom have a clear, sharp, mental picture of the elements of a

subject. It is for these two groups especially that this book was written." This work satisfactorily fulfills its aim. Every graduate nurse should read it, and the average practicing physician will find it refreshing.

GONORRHOEA IN WOMEN. By Palmer Findley, M.D., Professor of Gynecology in the College of Medicine of the University of Nebraska, Omaha; Gynecologist to the Clarkson Memorial Hospital and Wise Memorial Hospital; Fellow of the American Gynecological Society, St. Louis, Mo. C. V. Mosby Medical Book and Publishing Co., 1908. Price, \$2.00 net.

Dr. Findley has ably presented to us, in a brief manner, a compilation of the best in literature on the subject of "Gonorrhoea in Women," and, while it is not a new subject, it is one of vast importance, probably second to that of tuberculosis.

"It is estimated," says Dr. Findley,

"that 110,000 deaths occur annually from tuberculosis in our country; 107,000 from pneumonia, and 43,000 from typhoid fever. While there are no statistical reports of investigations of the mortality due to the infections and ravages of gonorrhoea in the female generative organs, I have little doubt, if it could be ascertained, that the race suicide, arising directly and indirectly, from this disease, would equal the mortality of any of the three diseases mentioned; and I am not sure that it would not exceed them all combined, if we take into consideration the depopulation caused by the one-child sterility; also the absolute sterility produced by

gonorrhoeal inflammation of the uterus and its appendages."

In the course of this monograph he discusses briefly, but carefully, the etiology, pathology, course, diagnosis and treatment of this ravaging disease and most interestingly treats the subject from a sociological standpoint.

H. G. MARXMILLER.

SCIENTIFIC LABORATORY HELP IN DIAGNOSIS. By Henry R. Harrower, M.D., Chicago. For the General Practitioner and the Specialist. Published by the Abbott Alkaloidal Company, 1416 E. Ravenswood Park, Chicago, 1908. A very useful brochure.

BACKBONE is a choice selection of helpful, cheering sentiments corrected and arranged by S. De Witt Clough, Ravenswood, Chicago, 1908.

LOS ANGELES DEATH RATES FOR THE LAST FIFTEEN YEARS.

Through the courtesy of Mr. H. Sief, Mortuary Clerk of the L. A. Health Department, we are able to publish the

following interesting tables giving some very important information, on the vital statistics of Los Angeles:

MISCELLANEOUS DISEASES.

Year	Estimated Population	Total Deaths from All Causes	Death Rate Per 1000	Deaths from Tuberculosis	Death Rate Per 1000	Deaths from Heart Diseases	Death Rate per 1000	Deaths from Influenza	Death rate per 1000	Deaths from Nervous Diseases	Death rate per 1000	Deaths from Diseases of the Kidneys	Death Rate per 1000
1892.....	65,000	945	14.38	204	3.15	76	1.17	0	...	19	0.29	52	0.81
1893.....	65,000	954	14.67	256	3.93	81	1.24	5	0.07	61	0.93	38	0.58
1894.....	65,000	1182	18.16	277	4.10	85	1.30	21	0.32	130	2.00	40	0.61
1895.....	75,000	1176	15.68	300	4.00	95	1.26	12	0.16	89	1.18	61	0.81
1896.....	100,000	1366	13.66	328	3.28	104	1.04	9	0.09	73	0.73	78	0.78
1897.....	100,000	1412	14.12	357	3.57	148	1.48	12	0.15	144	1.44	78	0.78
1898.....	103,000	1601	15.54	335	3.25	181	1.75	12	0.11	213	2.06	102	0.99
1899.....	103,000	1641	15.93	357	3.46	143	1.38	19	0.18	131	1.26	113	1.09
1900.....	103,000	1729	16.78	392	3.80	150	1.45	11	0.10	113	1.09	111	1.07
1901.....	103,000	1929	18.72	429	4.16	168	1.64	29	0.28	169	1.64	162	1.57
1902.....	120,000	2290	19.08	487	4.58	207	1.72	5	0.04	234	1.95	149	1.24
1903.....	135,000	2628	19.46	575	4.21	265	1.96	8	0.06	256	1.89	167	1.24
1904.....	180,000	2981	16.56	651	3.61	263	1.46	12	0.06	266	1.47	153	0.85
1905.....	200,000	3104	15.52	666	3.33	306	1.53	23	0.12	273	1.37	184	0.92
1906.....	250,000	3740	14.96	734	2.93	382	1.52	5	0.02	378	1.51	244	0.90
1907.....	250,000	4083	16.33	778	3.11	461	1.84	12	0.05	459	1.83	260	1.04

TUBERCULOSIS.

Year	Estimated Population	Total Deaths from all causes	Deaths from Tuberculosis	December	January	February	March	April	May	June	July	August	September	October	November	Death Rate per 1000
1892.....	65,000	945	204	22	25	23	16	26	9	9	19	15	8	16	16	3.15
1893.....	65,000	954	256	20	21	20	34	29	16	17	17	20	16	23	23	3.93
1894.....	65,000	1182	277	23	23	26	35	25	26	19	19	20	18	24	19	4.10
1895.....	75,000	1176	300	25	21	24	28	28	24	29	25	20	16	27	33	4.00
1896.....	100,000	1366	328	29	24	35	30	42	24	19	22	26	23	31	23	3.28
1897.....	100,000	1412	357	23	41	25	56	31	26	23	25	24	23	22	38	3.57
1898.....	103,000	1601	335	32	23	27	31	32	28	29	26	32	16	28	31	3.25
1899.....	103,000	1641	357	39	41	44	40	27	24	23	27	15	28	25	24	3.46
1900.....	103,000	1729	392	32	45	33	44	32	37	32	27	20	26	32	32	3.80
1901.....	103,000	1929	429	36	45	37	46	38	34	29	38	30	37	30	29	4.16
1902.....	120,000	2290	487	40	57	56	57	49	28	28	36	32	24	45	35	4.58
1903.....	135,000	2628	575	53	68	47	55	49	50	39	44	43	40	36	51	4.21
1904.....	180,000	2981	651	68	64	66	69	63	51	47	40	39	41	48	55	3.61
1905.....	200,000	3104	666	57	72	70	66	62	58	50	47	40	40	49	55	3.33
1906.....	250,000	3740	734	76	73	62	69	62	69	61	56	53	36	48	69	2.93
1907.....	250,000	4083	778	70	85	80	86	66	64	56	49	60	48	52	62	3.11

THERAPEUTICAL HINTS

ETHYL CHLORIDE AND "KELENE."

The physician who has never employed ethyl chloride in his minor surgical work has failed to avail himself of one of the greatest of conveniences. The results are uniform in all cases and, if the ethyl chloride is absolutely pure, there can be no disappointing results. The best of ethyl chlorides ever used by the writer, and that which is provided in by far the most satisfactory package, is known on the market as "Kelene," which is merely a trade term used to differentiate that absolutely pure product from the others on the market. Messrs. Fries Brothers, the manufacturers of "Kelene," were awarded a gold medal on their product at the Jamestown Exposition, but the most creditable award this product has ever received or can ever receive, is the absolute confidence of the medical profession.

COLLAGOL ENEMATA IN SEPTIC AFFECTIONS.—Dr. Curt Seidel (Surgical Division of the Dresden-Johannstadt Hospital), *Deutsche med. Wochenschrift*, July 30, 1908. The introduction of collargol into the system by the

inunction of unguentum Credé develops a gradual effect and its employment is limited in cases of emaciation and in painful affections. Hence this method is indicated in mild to medium-severe or localized, and in chronic or sub-chronic infections. The intravenous injection of collargol, though the sovereign method in grave cases where a rapid and intensive effect is necessary, is often technically difficult. In such cases collargol is often advantageously administered per rectum as originally proposed by Loebl (Schlesinger's division of the Vienna Franz-Joseph Spital) in puerperal sepsis and endorsed by Witthauer in joint rheumatism.

Given by enema, collargol is of course less rapidly absorbed into the blood and tissue fluids than when injected intravenously; moreover, the entire quantity is rarely absorbed. Hence a correspondingly larger dose must be used per rectum.

Collargol enemata have been given by Seidel in over one hundred extremely severe cases, such as were formerly treated with collargol intravenously. He gives the case histories of eight

typical ones. The treatment almost never fails, not even in very grave cases, if it is only pushed with the necessary vigor and persistence.

Lubricated with "K-Y" Catheters, Sounds or Speculae, can be used with much less discomfort to the patient than usually attends their introduction. "K-Y" Lubricating Jelly is of vegetable composition and contains enough antiseptics to preserve it without irritating the membranes. It is put up in collapsible tubes so that little or much may be used without exposing the remainder to contamination.

In the wasting diseases, as well as in rickets, scrofula and marasmus, it is of the greatest importance that a remedy be selected which will quickly check the pathological condition, and restore the organism to the normal without producing digestive or other functional disturbances. Cod liver oil has always stood first in the category of remedies calculated to bring about this desirable result, but unfortunately its peculiar odor and taste are features which are quite often objectionable to patients. Hagee's cod. ext. ol. morrhuae comp. is an elegant preparation, containing all the essential therapeutic properties of cod liver oil combined with tissue building chemicals (hypophosphites of lime and soda) and aromatics, which renders it agreeable to the palate.—*Am. Jour. Dermatology.*

We meet with many cases in practice suffering intensely from pain, where from an idiosyncrasy or some other reason it is not advisable to give morphine or opium by the mouth, or morphine hypodermically, but frequently these very cases take kindly to codeine, and when assisted by antikamnia, its action is all that could be desired.

In the nocturnal pains of syphilis, in the grinding pains which precede labor, and the uterine contractions which

often lead to abortion, in tic-douleureux, brachialgia, cardialgia, gastralgia, hepatalgia, nephralgia and dysmenorrhoea, immediate relief is afforded by the use of this combination, and the relief is not merely temporary and palliative, but in very many cases curative.

Muscular spasm is often controlled by antikamnia and codeine tablets.

Neurasthenia, Nervous "Breakdown," Nervous Prostration, "Brain-fag" and allied states are usually but neurotic manifestations of some constitutional metabolic fault, which must be sought out and remedied if intelligent therapy is to be applied. Among the various pathologic conditions which oppose the relief of neural disorders, Anemia, whether primary or secondary, is always worthy of therapeutic attention.

Pepto-Mangan (Gude) stimulates and encourages oxygenation and nutrition, by furnishing the more or less impoverished blood with an immediately appropriable form of its vital metallic elements, iron and manganese. The vital stimulus thus imparted is often the one thing needful to initiate the substantial systemic "building up" process which must precede the desired recovery from neurotic disorders.

Old books are best! with what delight
Does "Faithorne fecit" greet our sight:

On frontispiece or title page

Of that old time, when on the stage
"Sweet Nell" set "Rowley's" heart
alight!

And you, O friend, to whom I write,
Must not deny, e'en though you might,

Through fear of modern pirate's rage,
Old books are best.

What though the print be not so bright,
The paper dark, the binding slight?

Our author, be he dull or sage,
Returning from that distant age
So lives again, we say of right:

Old books are best.

PNEUMONIA

IN PNEUMONIA the inspired air should be rich in oxygen and comparatively cool, while the surface of the body, especially the thorax, should be kept warm, lest, becoming chilled, the action of the phagocytes in their battle with the pneumococci be inhibited.

Antiphlogistine (Inflammation Antidote)

applied to the chest wall, front, sides and back, hot and thick, stimulates the action of the phagocytes and often turns the scale in favor of recovery.

It is an acknowledged fact, as declared by a well known medical teacher and author in his latest text-book on treatment, that "heat applied and persisted in over the entire diseased area is a most potent and physiological antagonist to those essential conditions which are directly induced by the causes of the disease, and from which all ultimate pathologic results must develop. It is profoundly stimulating, and while local heat from undue combustion is present, the applied heat stimulates the capillaries and physiologically unloads the venous capillaries. At the same time it stimulates the arterial capillaries through its influence upon the peripheries of the nerves and secondly upon the nerve centers, to drive the accumulating tide through the engorged vessels, thus unloading them into the veins. It thus carries off the accumulating waste, brings into the capillaries a new tissue supply and quickly remedies the harm that has been done them in the primary congestion.

"It is a most rational procedure. It is logical, it is reasonable, it is physiological and it is highly scientific. And such a course is always acceptable."

CROUP

Instead of depending on an emetic for quick action in croup, the physician will do well to apply Antiphlogistine hot and thick from ear to ear and down over the interclavicular space. The results of such treatment are usually prompt and gratifying.

Antiphlogistine hot and thick is also indicated in Bronchitis and Pleurisy

The Denver Chemical Mfg. Co., New York

RUDYARD KIPLING TALKS TO DOCTORS.

MAKES BRILLIANT ADDRESS IN PRESENTING DIPLOMAS TO HOSPITAL GRADUATES.

LONDON, Oct. 3.—In distributing prizes at the Middlesex hospital medical school, Rudyard Kipling delivered an address sparkling with bright epigrams. He said:

"There are only two classes of mankind in the world—doctors and patients.

"Speaking as a patient, I should say that the average patient looks upon the average doctor very much as a noncombatant looks on troops fighting in his behalf; the more trained men there are between his body and the enemy the better.

"I have had the good fortune to meet a number of trained men, who in due time would be drafted in your permanently mobilized army, which always is in action, always is under fire against death.

"Of course, it is a little unfortunate that death, as the senior practitioner, is bound to win in the long run, but we noncombatants console ourselves with the idea that it is your business to make the best terms you can with death in our behalf, to see how his attacks can be longest delayed or diverted, and when he insists on driving his attacks home, that it shall be according to the rules of civilized warfare.

"Every sane human being is agreed that this long drawn fight for time, that we call life, is one of the most important things in the world.

"It long ago decided that you have no working hours that any body is bound to respect. Nothing except extreme bodily illness will excuse you in its eyes from refusing to help a man who thinks he may need help, any hour of the day or night. Nobody will care whether you are in your bed, bath or theater; if any of the children of men have a pain or a hurt in him.

"And in all times of flood, thaw, famine, plague, pestilence, battle, murder or sudden death, it will be required that you report for duty at once. You go on duty at once and you stay on duty until strength fails or conscience relieves you; whichever may be the longer period.

"Have you heard of any legalization to limit your output? Any bill for eight hours a day for doctors?

"It is laid down that you must save others, but it is nowhere laid down that you must save yourself.

"You belong to the privileged class. You and the king's business are the only explaining which the policeman will accept if you exceed the speed limit.

"If you fly the yellow flag over a center of population, you can turn it into a desert; if you fly the Red Cross flag you can turn a desert into a center of population, toward which, as I have seen, men will crawl on hands and knees.

"I wish you all work to do, and enough of it."—*L. A. Examiner.*

The Philadelphia publishing house of Lea (now Lea & Febiger) was established in 1785, thus ante-dating the American Constitution by four years. It witnessed the rise and fall of Napoleon, the second expulsion of the British from United States territory in 1812-1815, the Mexican War of 1848, the long agony of the Civil War, and the triumph over Spain in 1898. It went through the panics of 1841, 1857, 1873, 1884, 1893 and 1907 with credit unimpaired.

Dr. C. B. Dean, in *Ellingwood's Therapeutist*, reprint in the *Eclectic Review*, New York, says he is confident that sodium hyposulphite will abort smallpox if the treatment is begun within two or three days after a known exposure. It has been used in several cases with equally good results. Twenty (20) grain doses three times a day, kept up eight or ten days.

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THE SON OF OLD HIPPOCRATES.

BY JOHN L. MCGROARTY.

Dedicated to Dr. Frederick T. Bicknell on his completion of ten years' service
as President of the California Hospital of Los Angeles.

The son of old Hippocrates
The self within himself has slain,
He drank the cup of bitter lees,
And sits the constant guest of Pain;
No more to joy may he give heed
While yet another's lips may groan;
While yet there lives one human need,
Henceforth, he must forget his own.

The bugle's call shall sound for him
To follow armies in their tread;
But he shall stay, when stars are dim,
To pluck the wounded from the dead.
Not with the victor in his tent,
But bared to meet the biting breeze,
Above the fallen shall be bent
The son of old Hippocrates.

And when the field is won or lost,
The bugles hushed and stilled the drum,
To Peace that counts the bitter cost,
He, with the broken ranks shall come.
For victor brows the laurels fair,
But none shall think to call for him,
Save Care and Grief and gaunt Despair
That wait him still in shadows dim.

Though well he love the lure and thrall
Of lute and song and laughing eyes,
He must away and leave them all
When from the darkness Sorrow cries;

For he is bond to them that weep,
 And slave to them the fates deride—
 Nor storm nor fire nor flood shall keep
 His soul of mercy from their side.

Scion of that old, wandering god
 Who soothed the fevered pulse of Greece,
 The world's long highways he has trod
 Through blood-cursed war and palsied peace;
 His sword alone has fought for life
 Between the cradle and the grave,
 His hands through all the squalid strife
 Alone were stretched to heal and save.

He needs no poet to impart
 His glory to Fame's fleeting breath,
 His song is in the rhythmic heart
 That faltered at the door of death;
 His paeans are the hurrying feet
 Before whose tread the specter flees,
 And lips with gladness warmed to greet
 The son of old Hippocrates.

HONESTY IN MEDICINE AND SURGERY.*

BY ROBERT P. MC REYNOLDS, M.D., LOS ANGELES, CAL.

I consider it a privilege to be permitted to address your society upon the subject allotted to me in this symposium—"Honesty in Medicine and Surgery." At the same time, I have hesitated to undertake it, because I realize I am incapable of doing justice to it, and furthermore I have doubted the wisdom and propriety of asking you to consider a purely theoretical and abstract question—one containing nothing of true scientific interest. I can, therefore, offer as an only excuse for this encroachment upon your time, the hope cherished that we may be rewarded by having a free and open discussion, believing as I do, that this would aid us in gaining a more intelligent understanding of a complicated and difficult problem. I regret that I have nothing new to present to you—no original ideas to advance—no brilliant and startling theories to outline or promulgate. I must deal in the broadest generalities and

can not hope to substantiate my statements by the collaboration of a long list of statistics. There is nothing in medical literature, so far as I can find, to enlighten us concerning the actual or relative number of physicians who could be classified as honest or dishonest. It is a topic that we may theorize and surmise about, but in doing so we should appreciate and make allowance for that personal equation which enters so largely into everything we do; and remember always that what seems perfectly right and honest to one individual may seem just the opposite to another—the point of view makes a great difference. It is, therefore, manifestly impossible for any man, or body of men, to establish firm and fast rules for the regulation of a physician's professional life, because there must of necessity arise, from time to time, those border line cases and conditions which each one has to think out and decide

*Read before the Los Angeles County Medical Association December 18, 1908.

according to his own judgment and the dictates of his conscience. However, there are professional duties and obligations so clearly and obviously proper that the need for their strict observance is not a subject for debate or doubt. Their universal acceptance and recognition has given us a code of Medical Ethics—the guiding principles of which is to be honest and upright at all times and under all circumstances.

We are living in a most progressive, scientific age, and there has never been a time when medicine stood on such a high intellectual plane, or when it was so free from the mysteries and mysticisms of earlier days. It is rapidly acquiring the dignity of an exact science, and while this is most gratifying it in no way lessens the necessity for professional humanitarianism and honesty. The scientific attainments and skill of a physician cannot be too much admired, but in addition he must have a perfectly clean moral life, in order to reach the highest ideal.

There is one period in our national history designated as the "Era of good feeling." I wonder if it would be misnomer to call this the "Era of universal distrust." The searching inquiries made by the government into the management of certain Trusts and Corporations has demonstrated that the men at the head of these institutions are lacking in a proper regard for truth and honesty. Their finer and nobler instincts have been replaced by an inordinate avarice and an insatiable desire to make money. I think there can be no question about the moral status of the average business man, but it is more difficult to solve the problem concerning the professional man. An investigation by the State or Federal Government is not practicable or possible, and if reforms are needed within the profession it is a task for the physicians themselves. Already they have accomplished a great deal along this line—

remember only a few decades ago there was practically no restrictions placed upon the number of physicians—a few months' study in a doctor's office, and perhaps a short course of lectures, was all that was necessary. But today it is not so easy—one is required to furnish satisfactory testimonials of good moral character and subject himself to a rigid examination before he is permitted to try his skill. However, after he has once obtained a license there are no further serious obstacles in his way, and he can continue to practice indefinitely irrespective of what his professional attainments, his scientific knowledge, and his moral standing may be. It is true that there is a law which permits the State Board, under certain circumstances, to revoke one's license, a good law, but its enforcement is a dead letter. Would it be too great a strain upon the imagination to attempt to fathom what would happen if we had a non-political State Board, composed of honest, upright, representative physicians, who would and could investigate all cases where there was the least suspicion of incompetency or irregularity? If this were done, how many good reputations do you think would be tarnished, and how many beautiful Christian characters irretrievably blackened?

But be this as it may, and think what you will, I for one want to place myself on record as being unable to subscribe to some of the recent accusations made against the medical profession. I do not believe that physicians, as a class, are approaching the level of mechanical artisans, and that they have no more laudable and ennobling ambition than the accumulation of wealth. Some of them may be, and doubtless are, unduly influenced by a spirit of commercialism, but I like to think that they are the exception. In a profession embracing such enormous and varied possibilities we expect to find both good and bad. It offers untold opportunities

to those who are influenced by honest motives, and at the same time it holds out flattering inducements to the ignoramus, the charlatan, and the quack. It would seem that the latter class had found their Mecca in the city of Los Angeles—here in ever increasing numbers they bask in the genial warmth of our sunshine, and apply unmolested their mysterious arts.

Has not the time come for the bonafide physician and surgeon to wake up, recognize the dangers, and try to provide some rational method of getting rid of these pseudo doctors and fakirs? In order to accomplish this it is a *sine qua non* that we have professional unity. It is absurd to expect that physicians will eliminate from their lives all discord and strife, and that the various schools, cults and classes will live together in perfect harmony and accordance. The most optimistic optimist in his wildest imagination could not conceive of such a thing being possible. But to my mind a certain proportion of personal jealousies could be eliminated; and it seems reasonable to hope that advancement in civilization, education and refinement will tend to unite scientific workers in bonds of closer friendships.

The gain to be derived from such a union cannot be overestimated, for it is perfectly apparent to all that the most formidable and dangerous enemy the quack could have would be a thoroughly united and harmonious profession. Whenever physicians wilfully and maliciously belittle and malign their fellow workers they not only lower their own standing, but inflict an irreparable injury upon the profession as a whole. The doctor, of all professional men, is the one who comes in the most intimate contact with people, and his success or failure depends largely upon his ability to win their esteem and confidence. Unless this is obtained, retained and enlisted on the side of legiti-

mate, honest medicine and surgery, we can never hope to stamp out the wholesale fraud and medical trickery with which this country is saturated. It is of more than passing interest to note the marvelous growth of Christian Science, Neuropathy, Osteopathy, Electropathy, Hoodoism, and innumerable other "pathies" and "isms." The thought is engendered, are these "fads" (if I may be permitted to so call them) the result of some well-defined cause, and if so, is the medical profession in any way responsible? We would render ourselves open to ridicule if we attempted to argue that the new doctrines have been accepted only by those who are mentally unbalanced, the Monomaniacs. It needs only a cursory glance to dispell this illusion, and convince one that the medical profession has arrayed against it not only the grossly ignorant, but some of the best educated, most refined and cultured men and women in the community. A large proportion of the denunciations and abuses heaped upon us are too absurd to dignify by noticing, but on the other hand there are others we might do well to critically and carefully analyze. We are frequently confronted with statements like this:

"I tried materia medica faithfully but received no benefit from it; Christian Science cured me."

"I suffered from a complication of diseases, and after being pronounced incurable by the regular physicians, consulted a Divine Healer, who cured me."

"I paid out enormous sums to doctors, but was not in the least benefited by their treatment; a friend persuaded me to consult an Osteopath who replaced a dislocated vertebra and gave me immediate relief."

"I had a cancerous tumor which the surgeons wanted to remove; I refused, and consulted a Chinese herb doctor; he gave me a salve which scattered the growth, and I am now well."

We might quote testimonials of this kind indefinitely, but the few given are fair samples of the arguments used to point out the terrible misfortunes which will come to those who are foolish and rash enough to consult a regular physician or surgeon. Such accusations can in no way affect the fundamental truths upon which our profession is founded, but unfortunately, they do exert a certain baneful influence over the lay mind. The result has been a material diminution in the clientele of the men who are trying to do legitimate, honest work, and there should be some concerted action to prevent it.

It seems to me that a good way to begin would be by first putting our own house in order, and removing, if possible, any objectionable features connected with the daily routine of our work.

We must have a more general recognition of the true value to be placed upon drugs, for the wholesale abuse, dishonesty and ignorance in this line has caused an untold amount of harm. It has been the most potent factor in driving people away from regular physicians, and making them converts to Christian Science and other drugless doctrines. We should adopt a rational middle course between absolute therapeutic nihilism on one hand, and an unwarranted zeal for drug therapy upon the other. It will certainly be a triumphant day for medicine when the general practitioner learns to recognize that the pharmacopoeia contains only a few specifics, and to appreciate the fact that most of his indiscriminate drugging is worse than useless. We all look back with dread and horror upon the nauseating decoctions, the salivating, purging and bleeding of our fathers and grandfathers, but we do not stop and consider that the generations to come may have like cause to regard with repugnance some of the present-day methods. But the treatment of most

diseases is simple compared with the importance of being able to correctly diagnose them, which, after all, is the only real test of a physician's or surgeon's ability. I am sure that a great deal of the odium cast upon the profession today results from inexcusable, criminal mistakes in diagnosis made by physicians and surgeons, who are either grossly incompetent, or who are not honest and conscientious enough to give their patients a thorough examination. The profession would be better off without these men, who are only one degree higher than those accused scoundrels who never hesitate to commit criminal abortions, to accept rebates from druggists, to overcharge for their work, and to perform unnecessary operations—in fact, to do anything, no matter how vile or nefarious, provided, of course, there is sufficient pecuniary compensation. Alas, what a disgrace to the medical profession, and what a blight upon civic righteousness, that such men should escape prison bars and, unmolested, be allowed to enjoy the fruitage of practices so heinous and diabolical. Criminals they are—criminals of the worse type, but unfortunately they are never called upon to answer for their crimes. The cunning of man has not devised, nor can it devise, a way to reach that class of physicians, whose inherited instinct seems to prevent them from being honest and honorable; there is no law upon the statute books which can make them so. If the medical profession is to rid itself of this class it must be done by the refusal of the medical schools to graduate, and the State Boards to license, those who are not morally clean and upright.

There has never been a time when there was such a crying need for real men, men of the higher type, who are big enough, broad enough, and intelligent enough, to rise above the Ego, and who are willing to lay aside all sham

and propagandism and work for the good of humanity. Let us seek to eliminate from our work everything that smacks of hypocrisy and cant, and by placing the stamp of disapproval upon all forms of fraud and deception demon-

strate to the great lay public that we have their interest at heart, and that altruism, in the broadest sense, is the ruling spirit of all who practice honest medicine and surgery.

307-309 B. F. Coulter Bldg

THE ETHICS OF CONSULTATION.*

BY JAMES T. FISHER, M.D., LOS ANGELES, CAL.

The subject of this paper bristles with many delicate problems, and there are so many trying situations, which cannot be solved by any fixed Code of Ethics, that the writer feels himself in no way competent to present more than a cursory review of the subject, together with a few thoughts relative to a better feeling which may be engendered between the practitioner and the consultant. The method of consultation has changed during the past few years, owing to the fact that specialism has divided medicine into various branches.

When all men were general practitioners, and no one was supposed to know more about one subject than another, a consultation was somewhat after the manner of a committee meeting; the majority cast the vote, and that vote was reported to the patient.

In these days medicine has become a science rather than an art, and a consultation is a very different matter. It seems to me that certain points are essential in an ideal consultation:

First, it must be early enough to do good—how often do we know of cases, where, when the patient is about to die, a consultant is called, only to say, "There is nothing to do." This may possibly serve as a protection to the reputation of the attending physician, but his conscience would have been better protected had he called the consultant while it was still possible that something could be done.

A consultation is indicated immediately when the patient is not improving to our satisfaction. We should remember that his betterment is the main object of the consultation and that it can be best served by early, rather than late, advice.

The second important step is the choice of the *proper* consultant. This is difficult for these are days of specialism in medicine, as in all else. We are nearing the stage of the German professor, who spent his entire life in the study of the Dative and Oblative cases in Latin, and whose only regret at his death was, that he had not confined himself to the Dative alone.

We should recognize that the man who has devoted his years of study and research, say to the eccentricities of that organ called the heart, would be in a position to give more intelligent advice concerning its management than one who had not given it special attention. Our time is limited, and one man *cannot* learn *all* about *everything*. Let us choose then, the man for consultation, who is in a position to give us the most help.

Next, I should like to say a word about the demeanor of the consultant during the consultation. It is of the greatest importance, for upon it, will perhaps, depend the existence or non-existence of future consultations.

He should be introduced by the attending physician to the patient and

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family. It is best that he be allowed to examine the patient alone, having previously gotten the history from the attending physician. He should be careful to make little, or no comment, to the patient at the time of the consultation, nor to the family thereafter. In conclusion, the physicians should, in private, review the case in detail, determine the diagnosis, and agree upon a definite line of treatment. The result of this consultation should be presented to the family, or patient, by the family doctor.

The last point is in regard to how much of the findings of the consultation shall be told the patient. Here again, no Code of Ethics can solve the problem. Good judgment and moral uprightness alone are the guides. The patient is paying for the opinions of the expert, and he has a right to know them. If there be more than one consultant, there may be divergent opinions. There may be a choice between operation or medical treatment, between a risk-all for a definite cure, or a certainty of partial invalidism. The patient and the family have a right to know all opinions and to choose for themselves.

This, we say, is in a measure the ideal consultation, yet no unyielding laws of conduct can be laid down. Every case is a law unto itself, and all one can do is to be honest, thoughtful of our fellow doctor, and above all, use that God-given, alas, sometimes God-withheld quality—tact.

But the great fact remains that consultations are not indulged in to any great extent, by the profession at large; they are delayed as long as possible, and frequently the patient or family are the first to ask for them.

There must be a reason for this, and we have not far to go to find it. It is not because we are lacking in honesty, nor in an earnest desire to do all pos-

sible for the benefit of the patient; nor is it to save the patient's purse (for almost all doctors lower their fees to the ability of the patient).

It is, I think, on account of the frequency of the loss of patients and families from the attending physician's visiting list, after the consultation. If the patient's improvement after the consultation is thought to be due to the wisdom of the consultant, he is likely, in the next illness, to be called in place of the attending doctor.

The consultant himself is too frequently the sinner, in fact, must bear his share of the responsibility for the infrequency of consultations. His unethical demeanor makes consultations feared rather than courted. He is too frequently inclined to ignore the physician in charge. He talks to the patient and family, and often leaves the impression that had he only been called earlier, the patient would now be well. Worse than that, he sometimes criticises the attending physician openly. At best, he leaves doubts in the family's minds and the future usefulness of the family doctor is impaired.

It is true that the consultant often does find some egregious error, either in diagnosis or treatment, but with tact in his mouth and kindness in his heart, there are usually ways of remedying even this, without injury to the family doctor.

This lack of ethics, or of the thoughtful conduct in consultation, arises from actual thoughtlessness, usually coupled with ignorance of what is really expected. There is no better place to get this knowledge than in the medical school, and early in the course, at that, so that one may grow, unconsciously, to have an ethical mind—an aseptic mind—just as, unconsciously, the trained surgeon has aseptic hands. There should, at least, be a series of lectures lasting throughout the course, to keep ethical

principles, and kindness and thoughtfulness of one's fellow doctors ever before the mind of the student.

Then, too, the laity in a measure regards the request of a physician for a consultant, as a declaration of weakness and inefficiency, rather than of strength and honesty.

This attitude of the public mind is due, it seems to me, to the very fact that consultations are rare, and a consultant is used only in dire extremity. So cause and effect go in a circle.

If the profession made use of them more frequently, whenever, in all honesty, they are indicated, the public would come to regard them in their true light, as simply one of the valuable aids in the best treatment of the case.

That a consultation is valuable, I think no one with any experience, will deny. It is a lamentable fact, but one

we must face, that hundreds of people die every year, whose lives might be saved, if we would ask for assistance, from those in a position to know more of the subject than we, or even those, perhaps no wiser, who may see something that our eyes, accustomed to the symptoms, may have overlooked.

Especially is it desirable for the doctor newly graduated, to indulge in consultations, for a diploma from a medical school is not, alas, a certificate of unlimited wisdom. Away down in our hearts, even the best of us know that we are sometimes unfit to have the precious lives of loved ones entrusted to us, but because we know of no class more fit, we accept them, and do the best we can. But in all honesty, let us give them the benefit of all knowledge there may be in the profession, and not limit them to that in the narrow confines of one man's brain.

IS THE MEDICAL PROFESSION IN LOS ANGELES HANDICAPPED?*

BY CHARLES E. ZERFING, M.D., LOS ANGELES.

So great have been the strides made in scientific medicine in the last decade, and so startling have been the rapid changes which have taken place in the methods of medical education during the same period, that only those who have been in close touch with our best schools, either through recent graduation, teaching affiliation, or post-graduate work, can begin to appreciate the advanced methods of instruction carried on in these institutions.

Among these changes can be mentioned the preliminary requirements of the student before entering upon his medical studies, the lengthening of the course from two to four years, the high

character of the instruction given in the various laboratories of anatomy, physiology, pathology, chemistry and pharmacology, and the system of bedside clinical teaching so thoroughly carried on in the hospital wards.

In this laboratory work the old system of didactic lectures is reduced to a minimum, and the student is given the opportunity of seeing demonstrated, and what is infinitely more important, demonstrating for himself, the various vital phenomena, about which up to a few years ago, he read only in books, or heard his lecturer make ineffectual attempts to expound to a listless and unsatisfied class of students who wasted

*Read before the Los Angeles County Medical Association, December 18, 1908.

their best energies getting posted in the barren quizzes. That the system of quizzes, which Osler very aptly compares to the process of stuffing a Strassburg goose, has a real value when conducted by intelligent teachers, no fair-minded critic can deny, but when they consume two-thirds of the overworked student's time, they must justly be regarded as a monstrosity, and should be curtailed to their proper limitations.

Many of our teachers, unable to impart the real practical knowledge demanded by the doctor in his life's work, either through lack of comprehension of the student's practical needs, or of proper costly laboratory equipment, offer a bastard substitute, consisting of an impractical, theoretical course in the basic sciences of anatomy, chemistry, pathology, etc., which can be of little use to him in the future.

This system of theoretical teaching, which usually goes hand in hand with the quiz institutions, leads the student to the acquirement of an endless minutia of insignificant detail, while the practical portion of his education is sorely neglected.

While the revolution in laboratory instruction has been very striking in the last decade, it is questionable whether the needs of reform were less urgently needed when it came to instructing the student in the real object of his life's work, viz., the patient. Indeed, such leaders of the profession as Prof. Welch of Johns Hopkins, Bevan and Murphy of Chicago, and others, have lately taken occasion to point out to the profession in no uncertain tone, the urgent necessity of the student coming in direct contact with the patient in the clinic and hospital, so that he can obtain at first hand and at close range, that knowledge which is indispensable to his equipment, in order that he may be launched upon his life's work as a safe and sound practitioner of medicine and surgery.

These leaders have emphasized the fact that while the present laboratory facilities in the best schools are approaching the ideal, the clinical opportunities afforded the student are still very inadequate. They have urged hospital trustees and supervisors to throw open the doors of our large public hospitals to sincere workers and hungry students, if the public expected to be treated by doctors who were capable of being trusted with the sacred lives of our people. If the public expects good doctors, it must help to make them.

The day is happily past when our conception of adequate clinical instruction consists in listening to a clinical lecturer demonstrating a patient to a large body of gullable students. So great often was the distance between patient and student that opera glasses were necessary in order to see the objective signs so ineffectually pointed out by the enthusiastic orator.

But gradually it dawned upon a sincere and intelligent profession that medicine is not learned in that way; that in order to have a student learn disease, he must go about it in a manner similar to that pursued in any object lesson, the kindergarten method, if you please; he must see, feel, touch, handle, smell and listen, but he must do more; it is of paramount importance that he obtain an accurate history of the case, that the various secretions be analyzed, that he follow the case subsequently to recovery or dissolution. When the latter takes place, then is opened to him at the autopsy table the real avenue of knowledge.

The limits of this paper forbid a lengthy argument in favor of the routine performance of autopsies in both hospital and private practice; unfortunately, such a comparatively rare event in Los Angeles.

A few years ago I had the pleasure of hearing the illustrious Nothnagle, of

Vienna, narrate how in the little university town of Jena, with a population of about 40,000, more than 95 per cent. of the people who died in private practice are made the subjects of post-mortem examination, and what a wonderful impetus it gave to the profession in general. How it stimulated exact diagnosis and exhaustive endeavor to arrive at the truth, and what rational treatment resulted.

It is no exaggeration to say that the bulk of our knowledge was obtained in the dead house, and that the routine performance of autopsies is one of the chief reasons why German medicine dominates the world.

It can thus be readily seen that a legitimate medical school must be endowed with modern laboratories equipped with costly apparatus, that it is absolutely necessary for the teachers and students to have free access to the wards of a hospital where mostly charity patients seek relief, that the faculty be composed of medical men imbued with the proper scientific spirit, who by nature and training are competent to teach, and who themselves are familiar with the object under discussion, viz., the patient.

A cursory consideration of any first-class medical school, or profession in any city, will reveal the fact that successful teachers of medicine and surgery are invariably members of a visiting staff to a large hospital affording abundant clinical material, where the closest scientific study is made of every phase of disease; that these men through their writings and presentation of clinical cases and pathological specimens, before the local medical societies, give the entire profession the benefit of the work which is being done in their own public hospital.

I might go further and state that where such opportunities are not open to the profession at large, there will

you find medical schools sewing the seeds of incompetency, there will you find a profession with distressingly few members who are known beyond the confines of the city, there a profession void of scientific spirit, and everywhere rampant widespread distrust of the profession by the laity, where charlatanism and all manner of faith cures hold sway.

The development of scientific medicine, the creation of lofty ideals, the stimulation of zeal and enthusiasm for original research, the endowment of hospitals and laboratories, the subordination of commercialism, the absence of a narrow, petty spirit of Chauvinism have always gone hand in hand with the growth of a great medical school, properly endowed with laboratories, hospitals, and above all, a great faculty composed of men of the highest integrity, leaders in medical thought, men who think more of their scientific and moral rating than they do of their incomes, and who are ever ready by every means possible to advance their profession to that high plane to which it is naturally destined.

In surveying our opportunities and responsibilities as a profession, in attaining these high ideals, can we afford to be satisfied with the work which we are doing at present? A comparison with other cities where original scientific work is being done and where medical teaching has reached such great perfection, will not redound to our credit.

With an absence of a regular visiting staff to our County Hospital which is our only source of clinical material, is it any wonder that we should have among us so few who have been able to distinguish themselves in any one field of our science and art, that the numerous gifted young men who come to us with the finest practical and scientific training in all the specialties, should soon languish and decay, and in sheer despair drift into the great maelstrom

of general practice, their enthusiasm gone, their hopes blighted, and finally destined for that great army of hopeless mediocrity among which occasionally there might have shown a bright and scintillating star.

What is the remedy? It is easy for the carping critic to find fault, but to remedy the evils is another matter. May I offer a few suggestions?

This city of ours, with a population of 300,000, with a tremendous future, and rapidly acquiring a world-wide reputation as the most beautiful city in America, with a deserved repute as a health center, with an active medical profession, numbering about 600 regular practitioners, who are as clean, honest, intelligent, capable and hard-working body of medical men as can be found in any city, this city should take its proper place in the scientific medical world and emerge from the nebula which seems to hover over it, and rid itself of the aspersions and ridicule which all of us hear enunciated from time to time. It should be the constant aim and pride of every doctor in this city who is interested in medical education, and in the scientific welfare and reputation of our local profession, to secure for it those opportunities which are indispensable for its proper growth and nourishment, and for the fostering of that scientific spirit and enthusiasm in order that the teaching of modern medicine in our schools can be made possible, and the profession as a whole attain its proper destiny.

No institution promises to offer a solution to our difficulties except the County Hospital, thoroughly reorganized, and administered in a manner similar to other institutions throughout the country, which have become famous for their excellent clinical facilities.

While it is true that a certain kind of clinical teaching has been going on in this institution for some years, the fact

remains that the field, as a whole, is unexplored and will continue to be so under the narrow policy which has always governed this institution; and we can expect no relief until a regular and well-organized staff be appointed after the manner of other cities where successful work is being prosecuted. The time is ripe for an awakening from that lethargy which has paralyzed all organized effort and has kept stifled and suppressed that natural scientific zeal and enthusiasm which are the common possession of so many of our members within our city. Scores of these men have had the very best scientific training obtainable and would be happy to engage in this work if an opportunity was opened to them.

In order to make such a regime successful, the staff should be appointed not alone from the faculties of our medical schools, but a competitive examination should be opened to the profession at large, after the manner of the selection of the staff of the Cook County Hospital in Chicago, where much trouble was experienced in the selection of a staff by every other method except that by competitive examination, open to the entire profession, and governed by civil service rules. Through the latter means an active, high-class staff has been obtained, free from the usual criticism which followed when such appointments were made for political motives.

This society should take immediate action and procure a competent visiting staff to this institution, and thus open the way to a new era in the development of our profession. Will you do it?

Grosse Building.

NOTE.—Since the above was read a staff in connection with the Los Angeles County Hospital has been successfully installed.—Editor SOUTHERN CALIFORNIA PRACTITIONER.

TUBERCULOSIS AND PREGNANCY.*

BY ARTHUR D. BECHTEL, M.D., PRESCOTT, ARIZONA.

In the consideration of this subject I wish to mention for the sake of emphasis, that tuberculosis is the most universal scourge affecting our human race and, therefore, a careful study of the disease is necessary in order that we may stamp out the most fatal and dreadful malady that afflicts mankind. But in this paper I propose to consider it in relation to pregnancy: The danger to the female and offspring and what special bearing this has in causing the widespread dissemination of the disease.

LATENT TUBERCULOSIS IN THE FEMALE.

We will first consider the possible latency of tuberculosis in the female. Baumgarten assumes that the tubercle bacillus can lie latent in the tissues and subsequently develop, when for some reason or other the individual resistance is lowered. Such latent tuberculosis is particularly frequent in the post-bronchial glands. The sudden general outbreak of the disease during pregnancy or the puerperium, may be due to the penetration of an encapsulated focus in the body—the organisms regaining their virulence from the lowered resistance. The balance of control is destroyed since the tissues are no longer capable of producing antibodies. Tubercular glands are frequently found at autopsies where the suspicion of the disease was not founded. I knew of a case of acute pneumonic tuberculosis to develop in a woman during her puerperium, when no previous evidence of the disease had existed.

MANIFEST TUBERCULOSIS.

But more important is the subject of manifest tuberculosis in a woman, complicated by pregnancy. These manifestations may show themselves in many different ways familiar to us, such as

laryngeal tuberculosis, the pulmonary form, as an adenitis, or as bone consumption. The first of these conditions is the one most affected by pregnancy.

Kuttner¹ says that diffused laryngeal tuberculosis in pregnancy has an extremely grave prognosis.

It has been frequently noted, and many cases have been reported, where a woman who was suffering from a mild infection of tuberculosis of one or both apices, on becoming pregnant showed severe manifestations of the disease, as increased cough, rise of temperature, rapid loss of weight and even a fatal haemoptysis. In other cases no evident changes were noted until after parturition, when severe symptoms arose causing the death of the woman within one year.

Osler writes that pregnancy usually hastens the process, though it may be held in abeyance.

Cameron of Montreal says that out of 188 cases of pulmonary tuberculosis in non-pregnant women, 18 per cent. died within one year after the disease was established, but out of a similar number complicated with pregnancy, 94 per cent. died within one year.

Burckhardt² in Switzerland, observed fifteen cases of pregnancy in tuberculous women, and has not confirmed the experiences of others in regard to deleterious influences of the pregnant state on pulmonary affections. He found that a sojourn in the mountains induced a favorable turn in the tuberculous process, notwithstanding the existent pregnancy. Cases of progressive phthisis become arrested in the course of pregnancy. But we must remember that

¹Berliner klinische Wochenschrift (XLII No. 23, July 17).

²Deutsche Medizinische Wochenschrift, Berlin & Leipzig (XXXI No. 24).

*Read before the Yavapai County Medical Society, September 12, 1908.

these cases were all in a mountainous country and under the most favorable conditions for cures.

Von Rosthorn³ encountered twenty-five cases of pulmonary tuberculosis at his maternity, out of 1500 patients. In 67 per cent. of these cases the condition was aggravated by the pregnancy to a slight extent; 33 per cent. showed marked aggravation of symptoms. Spontaneous abortion occurred in 3. In 13 of the cases, the children were born at term; 5 cases were artificially delivered at third or fourth month. All bore it well. In one case the benefit was striking. In two severe cases of premature delivery at seventh or eighth month, death took place a few days later.

Levenger⁴ discusses the evil effects of pregnancy on laryngeal tuberculosis. His opinion as to injury from a pregnancy in case of laryngeal tuberculosis has been amply confirmed by his experience in three cases. In the first the woman died from the rapid progress of the laryngeal affection about two weeks after she had been delivered of an apparently healthy child. With the exception of hoarseness for two years there had been no indication of a throat trouble, until after delivery, when an attack of suffocation and fever led to the discovery of the tuberculous tumor in the throat and a lesion in the lungs. She succumbed in a week or so from haemoptysis. In a second case, Levenger delivered the patient at the end of the fifth month on account of the aggravation of the throat and pulmonary condition as the pregnancy progressed. She bore the operation well—as well as the excision of the tubercular tumor in the throat—and has since been in comparatively good health.

Weinberg⁵ (Stuttgart), another au-

thority, expresses his views that the influence of pregnancy on tuberculosis has been exaggerated. He presents statistics to show that the death rate in the year following child birth is no higher among the tuberculous, than among other women. However, he admits that pregnancy is frequently interrupted by spontaneous abortion and premature delivery. He concludes that the course of tuberculosis in pregnancy is not invariably unfavorable, and the disease does not develop with any striking frequency during pregnancy. Haemoptysis is not especially frequent during the puerperium.

Pradella in Berlin describes the results in twenty-two cases of pulmonary tuberculosis, in which pregnancy caused the pulmonary lesion to become aggravated. This was evident irrespective of the stage of the disease. He has collected from literature 1035 cases—only 13, that is, 1.25 per cent.—died during the course. The figures show that women in the thirties are most susceptible to aggravation of a tubercular process, and repeated pregnancies are peculiarly dangerous in these conditions. This is due largely to the complications, such as uncontrolled vomiting, development of laryngeal tuberculosis or intestinal lesion. In 17 out of 19 cases, in his experience, the influence of pregnancy was unmistakably evident in the serious aggravation of the tuberculous process.

Williams, of Johns Hopkins, says that it was formerly believed that pregnancy exerted a beneficial effect upon tuberculosis, the mother improving markedly as long as she carried the child, though she frequently succumbed rapidly after its birth. At present, however, it is generally conceded that its effect is almost always harmful. Moreover, the strain incidental to labor and the extra drain upon the system, if the mother nurses the child, pull such patients down still farther, so that the

³Monatsschrift f. Geb. und, Gynaekologie, Berlin (XXIII No. 5).

⁴Muncheuer Medizinische Wochenschrift (LIII No. 23).

⁵Beitrage Zur Klinik der Tuberkulose, Wurzburg, June, 1906.

final result is usually hastened. On the other hand, the disease does not appear to predispose to premature interruption of pregnancy, and it is not unusual for tuberculous patients to give birth to large and splendidly developed children at full term.

Von Amstell⁶ has collected a profuse array of opinions bearing upon the influence of pregnancy and labor on the course of pulmonary tuberculosis, and the advisability of producing abortion as regard the mother. It is now universally admitted that pregnancy exercises a most harmful influence upon the course of pulmonary tuberculosis, as statistics, as well as general experience show. In cases in which abortion is performed, particularly when performed early, the course is much more favorable. Labor and the puerperium are times of even greater danger than pregnancy itself. It is a matter of universal comment how frequently a quiescent, or unsuspected lesion will become active and rapidly spread during pregnancy or the puerperium. It is astonishing how many tuberculous women date their illness from childbirth.

Kuttner has recently reported a fatal outcome in 200 out of 231 cases of laryngeal tuberculosis, during pregnancy.

During pregnancy, the larynx loses most of its ciliated epithelium, and thus opposes less resistance to invading infection.

W. Treudenthal⁷ considers pregnancy in these cases of laryngeal tuberculosis associated with pulmonary affection. While it is impossible to assert that pregnancy influences the incident of laryngeal tuberculosis in those with pulmonary affection, it must be positively affirmed that it has a deleterious effect on laryngeal tuberculosis already established.

IN REGARD TO THE PROGENY.

We will first consider the subject of hereditary transmission. A strong upholder of this theory is Baumgarten, who believes that the transmission of the tubercle bacillus can, and often does, take place directly from maternal blood to the foetal circulation. There are three possible modes of infection:

I. By the sperm.

II. By the ovum.

III. By way of the blood through the placenta. The first of these will not be discussed in this paper. The second has not been proved, but the possibility of ovum transmission must be accepted, since Baumgarten has in one instance been able to detect the tubercle bacillus in the ovum of the female rabbit which he had artificially fecundated with tubercular semen. Probably the almost constant method of transmission in congenital tuberculosis is through the blood current, by way of the placenta. This organ we know is occasionally found tuberculous, but there are instances in which, with an apparently sound placenta, both the placental blood and the foetal blood contained bacilli, notwithstanding the fact that the organs also appeared normal.

But in these cases, there was probably an undiscovered focus in some part of the body of the mother. However, it proves the direct transmission of the tubercle bacillus from maternal to foetal blood.

C. Kraemer comments on the way in which the primary tubercular infection is being referred farther back to early childhood and argues that we should go a step farther and refer the primary infection to the ovum or foetus. He declares that the present conception of a predisposition to tuberculosis is merely the external manifestation of existing congenital tuberculosis. When the infection is extensive, the infants die young, but when the infection is merely

⁶Beiträge Zen Klink der Tuberkulose, 1907 (VII. No. 79).

⁷St. Louis Laryngoscope, December, 1907.

with a few, and possibly attenuated bacilli, the conditions may remain latent for years.

The conception of congenital tuberculosis is extremely important in practice. The family physician has it in his power to prevent the unexpected breaking out of tuberculosis in a family.

A. W. McSwain⁸ declares that too much emphasis has been laid on the contagious nature of the malady and too little on heredity, as the predisposing cause. He says that we are forced to recognize hereditary, or, if you please, an inherent weakness or impaired vital resistance, as one of the most potent factors to be reckoned with.

It has been noted by most casual observers that the children of this class come into the world with the cachexia well marked, many dying in the first few months of some form of tuberculosis. Others may live until puberty, and a few may lead a semi-invalid life, and drag out a weary existence, terminating before the meridian.

In connection with the direct transmission of tubercle bacilli to the foetus from maternal blood, John R. Williams⁹ gives us a case which is as follows:

Female, age 30, 8 months pregnant. Family history of tuberculosis.

History—Complains of night sweats, anorexia and loss of weight—20 pounds in last 10 weeks.

Examination—Both apices affected, sputum contains tubercle bacilli and elastic fiber.

Subsequent History—One month later in normal labor she gave birth to full term apparently healthy child, a boy of 7 pounds. Placenta and cord were put in formalin 4% sol. and sent to Dr. A. S. Wartin, Ann Arbor, Michigan, for examination. The child was taken to another house and was never afterward handled, nursed, or brought in contact

with the mother. He was fed on modified milk and for about six weeks made fair progress, gaining slightly in weight. Then in spite of the most studious care in feeding, he began to decline. He was then taken to the Infants' Summer Hospital at Ontario Beach and kept there for some weeks, but to no avail. The child, like the mother, now presented the typical signs of severe general tuberculosis. At this stage both mother and child were taken to the same house, although they were isolated from each other and had different nurses. The mother declined rapidly after delivery, dying six months later. The child outlived the mother by one month.

Dr. Wartin, after a number of careful examinations, was unable to find any evidence of tuberculosis in the placenta.

The mortality in tuberculosis in the first year of life is relatively high. Of 2576 autopsies on children, 27.8 per cent, who died in first year were tuberculous (Botz). Of 182 autopsies in children, one year or under, 17 were tubercular (Comley).

The localization of tubercular lesions in children in the bones or joints is very common, Cnopp's statistics showing that out of 298 tubercular children of from a few days to 12 years, 147 had bone or joint tuberculosis, and only 8 showed evidence of visceral disease (Osler). Baumgarten is of opinion that the accidental conveyance of the tubercle bacillus to these points would not account for such a large proportion of cases, and expresses the view that the bacilli have been present since birth and have developed when favorable conditions offered.

Gartner was able to cause tuberculosis in young mice by inoculating the mother with the bacillus.

In 1000 cases, Williams, of Johns Hopkins, found 48.4 per cent. with family predisposition. In 250 cases, Soley found

⁸(A. W. McSwain) Journal A. M. A., June 20, 1908.

⁹(J. R. Williams) Journal A. M. A., April 6, 1907.

28.8 per cent. parental predisposition (Osler).

Hilton Fagge remarks that it is impossible to draw a line between hereditary and accidental tuberculosis, as naturally the children of an affected parent are more liable to accidental contamination. These facts go to show that women suffering with tuberculosis who become pregnant are very liable to transmit the disease to their offspring, frequently by direct blood conveyance. But we must consider that probably the great majority of cases of tuberculosis developing in infants and children begotten from tuberculous mothers is due largely, but not wholly, to a strong hereditary predisposition acquired during development in utero. However, whichever it may be, if both are not important factors, there is the one final result, namely, the dissemination of the disease.

Dr. Cameron, of Montreal, makes the statement that one-third of all children born from tuberculous parents, die before the seventh year, and rarely do any reach adult years and be healthy and strong. He also says that if the tubercle bacilli reaches the foetus, it usually lies away in the bones or peritoneum and develops after birth.

Von Amstel says that children are probably as a rule born free from tuberculosis, while germinal infection may be possible and placental infection very frequently does occur. Baumgarten alone of prominent writers ascribes any very great importance to congenital tuberculosis. Numerous statistics show, however, that only a small number of children of tuberculous mothers reach puberty, most dying in the first few years of life. The prevailing opinion is that post-natal, and not ante-natal infection, plays the prominent role. There is at present a strong French school, prominent in which is Landouzy, which is insistently urging the view, that tubercular antecedents are an important

factor in the production of various hereditary malformations, laying special emphasis upon the frailty and lack of resistance of children of the tuberculous. At any rate it may be confidently asserted that such children are less likely to reach adult age.

Williams, of Johns Hopkins, says that in very exceptional cases tubercle bacilli may be transmitted from mother to child, but when one considers, however, the large number of tubercular women who become pregnant and the very small proportion of cases in which the transmission of the disease to the foetus has been demonstrated, it is apparent that the latter must be a very exceptional occurrence. Presumptive evidence in favor of this view was supplied by a case occurring at the Johns Hopkins Hospital. The mother had died from a tuberculous peritonitis a short time after delivery and at the autopsy the exterior of the uterus was found studded with tubercles, while the interior was covered with tubercular ulcers and caseous material. The condition was suspected at the time of labor, and with a view of determining whether the placenta contained tubercle bacilli, guinea pigs were inoculated with portions of it, but with negative results. Cultures taken from the interior of the uterus during life revealed the presence of tubercle bacilli. The child, however, presented no signs of the disease and was perfectly well some months later. It would appear, however, that in the vast majority of cases the disease is not transmitted directly from mother to foetus.

Hauser (1898) collected from literature 18 cases in which the transmission of the tubercle bacillus was definitely demonstrated. In 5 of these cases, bacilli were found in the various organs, but specific foci were not present. In 4 cases tubercular lesions could be demonstrated in the foetal portion of the placenta.

Later Anché and Chamberlent discovered distinct evidence of tuberculosis in a child 26 days old, and considered that the disease was congenital.

Burckhardt believes that a child may be born with congenital tuberculosis which may remain latent for years before showing any sign.

Wollstein reports a case of advanced tuberculosis in a woman dying six days after the birth of the child in the eighth month of pregnancy. The bacilli were found in the chorionic villi. He believes that foetal infection occurred just before birth.

MARRIAGE AND TUBERCULOSIS.

This subject is important since it bears directly on the dissemination of the disease. However, different authorities hold different opinions, and to do justice I must consider each.

Weinberg says that weakly and tuberculous young women should be advised not to marry.

Kraemer, "the marriage of the tuberculous should be advised against, until the parties are cured, and the physician has the right to exact this, as the veto is only temporary."

McSwain, "It is especially injurious to women afflicted with the disease to bear children."

Von Rosthorn says that in many instances girls with a tendency to tuberculosis and with suspicious family antecedents, and even those known to have been actually affected, may grow strong after marriage.

Osler points out that, (1) subjects with healed lymphatic or bone affection marry with personal impunity and may beget healthy children. It is undeniable, however, that in such families scrofula, caries of the bones, anthritis, cerebral and pulmonary tuberculosis are more common; (2) the question of marriage of a person who has arrested or cured lung tuberculosis, is more difficult to decide. With a localized lesion, absence

of hereditary taint, good physique and favorable environment, marriage might be permitted. When the disease has existed, however, in a girl whose family history is bad, whose chest expansion is poor and whose physique is below the standard, the physician should, if possible, place his veto upon the marriage; (3) with existing disease, fever, bacilli in sputum, etc., marriage should be prohibited.

Cameron of Montreal says that any woman who has tuberculosis is in danger if she marries.

McSwain, "Tuberculosis subjects should be taught in the most impressive way that to marry and intermarry will inevitably bring much sorrow to the household; that they will but hasten themselves into untimely graves, and leave behind them perchance a sickly posterity that will be liable to succumb to the disease. If women who are victim to the disease are prevented from propagating their species we will have gone very far towards the complete eradication of tuberculosis."

THE PROGNOSIS.

I. As to the mother's life.

Von Rosthorn writes that long continued fever gives a bad prognosis. Also laryngeal affection or intestinal tuberculosis with loss of weight are bad. Localized encapsulated processes in the lungs are more favorable. Involvement of both lungs with infiltrating process is bad. Softening, and cavity formations means a grave prognosis. Pregnancy seems safe for the woman whose pulmonary lesion has been stationary for years, or relatively cured, with the objective findings favorable, with or without bacilli in the sputum. Well nourished, free from fever for more than one year and without hemorrhage, the prognosis is good. Pregnancy in tuberculous women has a direful outlook under all circumstances in cases of florid processes, or when, with even slight objective findings there is fever

that cannot be controlled by sanatorium or other treatment. It is also bad when pulmonary affections are complicated by heart trouble, or intestinal infection, and especially with laryngeal tuberculosis. Also bad when there is marked family tendencies.

J. Veit comments on the fact that the pregnant woman as a rule gains in weight more than is explained by the growth of the ovum. Not only the cells of the foetus, but the cells of the maternal organisms under the influence of the growing ovum, acquire the faculty of increased assimilation. The tubercular woman, he says, may present this same phenomenon when she becomes pregnant, or, she may show a progressive decline in weight, owing to the progress of the tubercular affection. In the latter case she is doomed. In his experience women in this last class either abort or die soon after delivery. Between these two groups, is a third group, in which the weight fluctuates within narrow limits. His impression is, that women in this group are in peril, but that they can be saved by speedy interruption of the pregnancy. By careful study of the weight, he thinks that it is thus possible to foretell the outcome. Those who gain steadily in weight come through the ordeal unimpaired. Those who lose steadily are doomed, while those whose weight remains stationary, or fluctuates a little, are in grave peril.

Dubois remarks, "If a woman threatened with phthisis becomes pregnant she may bear the first accouchment well, a second with difficulty; a third never."

II. As to the child. The chance of a living child being born is good. Abortion is seldom the result, except in the last stage of the disease. According to Cameron of Montreal, one-third die before 7 years, and rarely do any reach adult years and be robust. Deformities, such as congenital dislocation of the hip may occur. If the child be sepa-

rated from the mother, and fed by a wet nurse, then the prognosis is better.

If the mother has tuberculosis and rapidly becoming worse, then the chance of a living birth is very small.

It is known that children of tuberculous mothers, even though they may show no evidence of the disease, are strongly predisposed to the infection, subsequently, and therefore have not the same chance with other children.

Von Amstel gives statistics to show that only a small number of children of tuberculous mothers reach puberty, most dying in the first year of life.

TREATMENT.

In regard to treatment we have to consider both the mother and the progeny.

Ruge summarizes his views in the statement that in advanced tuberculosis the interest of the child should be regarded as paramount; while in incipient tuberculosis the interest of the mother should take precedence.

In Burckhardt's fifteen cases he found that abortion had no curative action, and in some cases proved directly injurious to the mother. It should be restricted to advanced cases of pulmonary affections or those complicated by uncontrollable vomiting. During birth, loss of blood and physical efforts should be restricted to the minimum. So, he advises the free use of chloroform and delivers artificially. Mothers must refrain from nursing, and they should be kept in the mountains four to six months after delivery.

Kuttner theoretically advocates artificial interruption of pregnancy, but in practice the measure is permissible only when conditions indicate that it is the only chance to save the life of the mother, and offers some probability of success. Experiences to date show that premature delivery in last months has little prospect of favorable outcome.

W. Freudenthal, in the *Laryngoscope*, St. Louis, December, 1907, says that

early interruption of pregnancy may save the mother. The percentage of deaths if pregnancy is not interrupted amounts really to 100 per cent. and the children almost invariably die anyway.

In Pradella's 22 cases, interruption of the pregnancy caused the retrogression of the disease in 14 cases, and these patients have been in good health since, the interval ranging from two to over twelve years in 11 cases, and from two to six months in others.

In one case the woman was artificially delivered at term. In 18 other cases abortion was induced at from two to seven months. In 15 of the women the improvement of the pulmonary affection was evident during the puerperium. He concludes that if a pulmonary process shows signs of aggravation under the influence of pregnancy and no benefit is derived from systematic conservative therapy, or when external circumstances render such treatment impossible, then the indications are for removal of the cause inducing this aggravation, that is, therapeutic interruption of the pregnancy. In cases in which the pulmonary process has flared up during previous pregnancies and there is reason to suspect renewed trouble, the prophylactic measures are justified.

Williams believes that induction is justified only in the interest of the child in the rare cases in which the woman is so ill that it does not seem probable that she will live until the end of pregnancy.

Cameron terminates pregnancy at once, in the hectic stage of tuberculosis, if the child is viable.

Many believe that it is best to empty the uterus at once if the process is at all active, only in cases where it is certain that the mother cannot live, then our duty is to save the child.

Preparatory to treatment J. Veit first weighs the woman, then she is

given an ounce of castor oil, and the next morning the intestines are thoroughly rinsed out, the bladder emptied and the woman is weighed fasting. Afterwards she can eat and drink as she will, but must not exert herself. He prefers to have her stay in bed. Daily after the evacuation of the bladder she is weighed again, fasting, but without a purgative, and again after one week she is given the same dose of oil and weighed again and the findings are compared with those of the first weighing. In some dubious cases he has kept observation up for weeks before formulating his final decision as to the indications.

Van Amstel says that Maragliano considers the presence of tuberculosis in the mother an absolute indication for the production of an abortion, and Pinard, who would allow an abortion only when pregnancy itself is the menace to life, advises to nurse the patient carefully and allow the pregnancy to take its course. The earlier and more favorable the lesion, the more positive is the indications. In far advanced cases, operation would be no good to the mother.

CONCLUSIONS.

I. Pregnancy, labor and the puerperium have a harmful effect on tuberculosis.

II. If hereditary predisposition exist in mother, pregnancy often causes the disease to develop in her organism.

III. Hereditary predisposition is the strongest factor in contributing to the propagation of tuberculosis.

IV. The direct transmission of the tubercle bacilli from maternal to foetal blood through the placenta does take place in some cases.

V. If women who are victims to the disease are prevented from propagating their species, we will have gone very far towards the complete eradication of the disease (McSwain).

VI. Children of tuberculous mothers have less resisting power, and less chance of living than ordinary children.

VII. If marriage of tuberculous people entail disease on the posterity, the

descendents that result from such marriages are a menace to the community at large and the marriage of such persons ought to be interdicted by law (McSwain).

SOME MAXIMS FOR TUBERCULOSIS PATIENTS.

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One of the first thoughts to be firmly planted in the mind of a person who has pulmonary tuberculosis (consumption of the lungs) is that *tuberculosis is a very serious disease*; a disease so serious, in fact, that one, out of every ten persons, dies therefrom. If the serious nature of this scourge can be impressed on such a person, then he or she is usually quite willing to do the things necessary to get well and be cured.

A second thought for the patient to fully appreciate, is that *this disease is*

also one of the most curable of all diseases, that is, if the right efforts are made to overcome it in its early stages; and that even in its advanced stages, under most discouraging surroundings, it has been possible to restore to careers of usefulness many lives.

This pamphlet on some thoughts for persons sick with tuberculosis will only briefly discuss medicinal measures; consider more at length, the hygienic-dietetic treatment; and outline also, some of the measures of prevention.

SUMMARY OF MEASURES USED IN TREATMENT OF TUBERCULOSIS.

For the purpose of this paper, a summary of the measures used in the treatment of pulmonary tuberculosis and which in this paper will be considered in turn, might be arranged as follows:

I. HYGIENIC DIETETIC	A. Surroundings	a. Physical.....	1. Climate
		b. Mental.....	2. Locality
	B. Diet.....		3. House
		a. Habits of eating	1. Social
	C. Mode of Life	b. Foodstuffs	2. Temperament
		a. Clothing	
	C. Rest.....	b. Baths.....	1. Air
			2. Sun
			3. Water
		d. Exercise.....	1. Mental
		e. Sleep.....	2. Bodily
		f. Amusements	1. Lung
II. MEDICINAL	A. Symptomatic		2. Bodily
	B. Eliminative		
	C. Tonic		
	D. Immunizing	Tuberculins	
	E. The Physician		

III. PREVENTIVE	A. <i>Against Exciting Cause or Germ...</i>	a. Sputum.....	1. Napkins
			2. Spit cups
			3. Cuspidors
		b. Habits.....	1. Speaking
			2. Coughing
			3. Kissing
	B. <i>Against Predisposing Causes or Bodily Weakness.</i>		4. Eating
			5. Bathing
			6. Sleeping
			a. Hereditary Weakness
			b. Previous Diseases
			c. Overwork
	d. Overcrowding		
	e. Underfeeding		
	f. Vicious Habits		

I. HYGIENIC-DIETETIC MEASURES.

As regards the hygienic-dietetic measures, this portion of treatment is of the very first importance. No matter what medicinal measures are used, *the attention to surroundings, diet and mode of life must form the basis of all successful efforts to overcome tuberculosis.* Without attention to these factors, the fight is apt to be in vain.

It has been the demonstration of this fact that has been responsible for the more modern opinion that *tuberculosis is curable in any climate.* Also that the *patient living in an undesirable climate, who will make an honest effort to avail himself of the curative elements of such a climate, has a better chance for recovery than the patient who goes to a more distant clime, but who through lack of means, knowledge or willingness, fails to live up to that mode of life which has proven to be so necessary, if the body is to conquer the tuberculosis germ and the disease it produces.*

A.—SURROUNDINGS.

CLIMATE IN GENERAL AS A CURATIVE FACTOR.

Tuberculosis of the lungs can be and is cured in all kinds of climates.

That climate is the best for any particular patient, where that patient can

live the hygienic-dietetic life most comfortably and contentedly.

The best climate in the world, if associated with poor food, uncomfortable surroundings and homesickness, is worse by far than a poor climate, with good food, comforts, contentment, desire to get well, and willingness to live the proper life under the guidance of a competent physician.

Climates are good for tuberculosis in so far as they contain uncontaminated oxygen, much sunshine, comparative dryness, daily temperature variations that are not too extreme, and surroundings that make for nutritious living and contentment.

To leave an Eastern State for Arizona or California and upon arrival there to live in a poorly ventilated room and on insufficient food and rest, is worse than staying at home with comforts, nutritious food and good nursing.

LOCALITY AS A CURATIVE FACTOR.

Other things being equal, *the country is better than the city,* and a moderate elevation better than the low lands.

When one can choose, a *beautiful scenic outlook* is to be preferred.

The soil should be dry and of a nature to drain rapidly after rains.

Freedom from excessive dust and wind storms is desirable.

The *foothills* are better than the beaches.

A *region is desirable* when it has pure air, lots of sunshine, not too much moisture, and temperature variations not so extreme as to prevent the out-of-door life to the fullest possible extent.

Other things being equal, *that locality is to be preferred*, which in addition to the atmospheric factors just given, also has facilities for good food and pleasant houses and surroundings.

THE HOUSE AS A CURATIVE FACTOR.

The *ground on which the house stands* should be dry and well drained.

That house is to be preferred which contains *rooms that can be easily ventilated*, and which, during the day, can be flooded with outside air and sunlight.

A *room with a southern exposure* is usually desirable.

The room with *good exposure*, and having two or more *windows for ventilation*, is to be preferred.

The tuberculous patient should have a *separate room*, if possible, and always a *separate bed*.

Flood the rooms of the house in which the patient lives with *sunlight and fresh free air* from the outside and *avoid dry dusting methods* in cleaning.

SOCIAL SURROUNDINGS AS A CURATIVE FACTOR.

The *persons with whom the patient lives and associates*, should be willing to co-operate with him in living the life laid down by the physician.

The *patient's friends cease to be friends* when they give advice on treatment and other things, concerning which they know little or nothing.

The *advice of well-meaning but foolish and ignorant friends* has been responsible for the death of many patients who were on the road to recovery.

The *patient's family are to be preferred as associates*, to strangers, provided that neither the family nor the patient plays the role of tyrant.

THE PATIENT'S TEMPERAMENT AS A CURATIVE FACTOR.

The patient's *condition of mind* is of the very highest importance.

It is *never too late for the hopeful patient* to begin the fight against the disease.

A *contented, happy, courageous mind* is worth a host of ordinary tonics. Many persons who were given up entirely by family, friends and physicians have recovered from tuberculosis.

Willingness on the part of the patient to follow the advice and do the things laid down by his physician, is most important.

And equally important, must be the *unwillingness by the patient*, to accept the advice of others than the physician.

Talkativeness, particularly in discussing your own condition to friends, is to be deprecated because of its bad effect on both the mind and body. To *save the voice* aids recovery. *Letter writing* is also easily overdone.

Tuberculosis follows a path of many windings and obstacles. *One guide who knows the road and way out*, is worth a host of chance and guess pilots. Hold fast, therefore, to the tried physician, in whose care you have given yourself.

B.—DIET.

HABITS OF EATING AS A CURATIVE FACTOR.

Three meals a day, with single in-between lunches for patients who are up and about, are an ample sufficiency.

Food should be *eaten slowly*.

The *condition of the teeth and mouth* should be looked after. Particularly after milk should the mouth be rinsed.

A *dainty table service* acts as an appetizer. Do not let the remains of previous meals remain on the table, to take away the appetite.

Rest in the recumbent position, both before and after meals, often aids digestion.

FOOD-STUFFS AS CURATIVE FACTORS.

To get a *maximum amount of energy and nutrition* from the foodstuffs eaten, with the least possible work on the part of the stomach, is the purpose of a dietary in tuberculosis.

Milk, eggs, rare meats and the more digestible vegetables form the basis of many diet lists.

Fruits and laxative foodstuffs are desirable.

Avoid fried foodstuffs, pastries and rich sweets.

Avoid ice water, and drink water between rather than at meals.

Alcohol is not a food. Do not use wines unless ordered by your physician.

Three ordinary meals a day on which the body is to hold its own, and enough milk and eggs in the ten and three o'clock lunches to build up a nutritional reserve, is not a bad plan to follow.

Food at night in shape of a glass of milk or an egg often helps overcome sleeplessness or cough.

Disorders of digestion should not be neglected, for the stomach is the fuel box from which the energy necessary for healing is generated.

C.—MODE OF LIFE.

CLOTHING AS A CURATIVE FACTOR.

Just enough clothing to keep the body warm, light woollens or the linen meshes preferred.

Do not wear so much underclothing, as to bring on perspiration. If such perspiration evaporates too rapidly, the skin is chilled and the lungs are liable to increased congestion and inflammation.

At night keep the feet and body comfortably warm with sufficient bed clothing. The same holds true during rest out of doors during the day.

Do not wear chest protectors. They weaken instead of strengthening the chest, and predispose to colds.

To keep warm in cold weather, or in the shade or wind use overcoats and top clothing, rather than an excess in amount of underclothing that will bring on a perspiration and under proper conditions be responsible for colds and inflammations.

In rainy weather, keep the feet and shoes dry, by wearing rubbers. If the body and feet do become wet, take an alcohol rub and put on dry clothing.

The clothing should be loose; any clothing which hinders free breathing and movement of the body is detrimental. This applies especially to the clothing of women.

When the patient *sleeps out of doors*, it is often wise, in cold weather, to wear an *extra or night undershirt*, and perhaps a *cap* or other head covering.

BATHS AS CURATIVE FACTORS.

The baths to be considered are of *three kinds, air, sun and water*.

Of these the *air bath is the most important*. The *tuberculous lung should be constantly bathed in pure air*. This is accomplished by being out in the open as much as possible during the day, and by sleeping on a porch or in a well-ventilated room at night.

The *outside night air* is nearly always more pure and more beneficial to healing than any inside-room air, certainly always better than that of a poorly ventilated room.

Fever is no excuse for living in a poorly ventilated room. Place the couch or bed in a well ventilated room or porch.

Sun baths are to be used with discretion. The *head should be protected* and the skin should not be exposed sufficiently to inflame or burn. The time of exposure and frequency depends upon the intensity of the sunlight. In the

beginning an exposure of about ten minutes may suffice.

Cleansing water baths should be taken once or twice a week, at a comfortably warm temperature, and usually before going to bed.

Tonic water baths are most easily given by means of the sponge. A quick sponging of the chest and trunk by means of a sponge or wash cloth, with water at ordinary hydrant temperature, followed by drying with a soft towel and a rub with a rough towel, sufficient to bring a glow to the skin. These are best given on rising in the morning.

REST AS A CURATIVE FACTOR.

Rest of mind and body are nearly always needed by the tuberculous patient.

An active or worrying mind will use up energy that should go to the repair of the diseased lung tissue.

The patient with tuberculosis should never hesitate to rest, when so disposed. Rest in the pure air, to the body that needs it, and the body of the tuberculous patient nearly always does, is almost always beneficial.

A brief rest, lying down, before meals, acts often as an appetizer, and a *rest for a half hour* or so afterwards helps digestion.

Rest should always be taken in the pure air. If in the room, the windows should be open and if the temperature is cold, the body should be kept warm with sufficient clothing and coverings. A hot-water bottle near the feet is often grateful.

Night rest should not be neglected and eight to ten hours of such sleep, in a well ventilated room or on a screened porch, should be striven for.

EXERCISE AS A CURATIVE FACTOR.

When a *tissue is diseased*, nature always seeks to aid its repair, by giving it *rest*. This rule holds good with the diseased portion of the lungs, and such portions lag more than the healthy tissue.

No lung or *breathing exercise* should be taken *except on the advice of a physician*.

Instead of breathing exercises in which an attempt is made to get too much air in the lungs in a few minutes, aim to get *sufficient pure air in the lungs, every minute of every hour of every day*.

An easy rule for a *proper position of the chest* is to hold the head up, with the back of the neck in contact with the collar.

Bodily exercise, if not used with discretion, may be dangerous. More than one patient has walked or exercised himself to death.

Do not exercise if the *sputum* is tinged with blood, nor when there is much *shortness of breath* or *palpitation* of the heart, except as ordered by your physician.

The rule for exercise is for the patient to *always stop before he feels fatigued*. No matter what the exercise, whether it be great or small, if the body be fatigued therefrom, it is probably harmful.

Patients with fever, had better take their walks in the morning, when the fever is not present. Patients with fever should always consult their physician about exercise. With such patients exercise requires the same discrimination as powerful medicines.

AMUSEMENTS AS A CURATIVE FACTOR.

Amusements are like exercise, *if in just sufficient amount* to relax the mind and body, without strain or effort, they act as a tonic and are beneficial.

Cards and other games are *harmful when they are sufficiently exciting* to cause an increase in the fever.

Theaters are harmful not only because of the exciting character of many plays, but also because of the crowd and impure air.

Outdoor amusements are nearly always to be preferred to indoor recrea-

tion, because the outside air is nearly always more pure.

SLEEP AS A CURATIVE FACTOR.

Do not stint in giving yourself *all the sleep* your body craves, but see to it always that you sleep in *pure air*.

Sleeping in a screened room or porch is always to be preferred, but if the weather be raw, a suit of underclothing in addition to regular night dress, and perhaps a head covering of some sort, may be advisable.

When a room is used for sleeping purposes, choose one with more than one window. *A single window room*, unless there be a fireplace in it, is most difficult to ventilate.

If the air be cold and raw, and there is no adjacent dressing room, the windows may be almost closed, one-half hour or so before rising, to take the chill off the air while dressing.

Have *sufficient bed coverings to keep the body warm*, but choose the light rather than the heavy kinds.

II. MEDICINAL MEASURES.

SYMPTOMATIC MEASURES AS CURATIVE FACTORS.

Cough is often a distressing symptom. The patient should teach himself to *keep down the cough*, except when secretion has accumulated that must be coughed up and expectorated.

A very large proportion of coughing among tuberculous patients is a *habit cough*. *Avoid and strive to overcome such a habit*. Unnecessary coughing pulls and tears at the lungs and helps spread the germs from the diseased to the healthy portions of the lungs.

A glass of milk, preferably warm, will often lighten the *morning cough*.

Avoid patent cough medicines. They nearly always *contain opium and alcohol*. They suppress the cough, but they do not do away with the things that cause the cough. Even though the cough is less, the disease is probably

growing worse. These medicines also interfere with digestion and fasten dangerous habits upon the system.

For the *pain in the chest*, local remedies like painting with tincture of iodine should be tried before opiates.

In case of unexpected hemorrhage, try to avoid being excited. *Few people die of hemorrhage*. Get into a comfortable position, avoid talking, have the clothing loosened, the room cool and quiet, and then let your physician be your guide.

If medicines disagree with you, discontinue them and consult your physician in regard thereto.

For other symptoms, let your physician advise what treatment may be necessary.

ELIMINATIVE MEASURES AS CURATIVE FACTORS.

Elimination is through the bowels, the kidneys, the skin and the lungs. Here we need concern ourselves only with the bowels.

The patient should have a *bowel movement daily*. If a regular time and habit and proper diet be insufficient to induce such a movement, then recourse must be had to mild laxatives like the fluid extract of cascara, or to salines like salts or seidlitz powders.

TONICS AS CURATIVE FACTORS.

Remember that *pure air is one of our most powerful tonics*. Herein lies much of the value of the hygienic-dietetic life.

Avoid cod liver oils and such like preparations unless prescribed by your physician as being good for your particular case.

Avoid wine, whisky and other liquors unless prescribed in definite amount by your physician.

Tonics are often valuable aids, but *discrimination is needed in their use*. Here, as in foods, what is good for one, is poison for others.

IMMUNIZING MEASURES AS CURATIVE FACTORS.

In all *infectious diseases* (diseases caused by living organisms or germs), *Nature seeks to overcome these invaders* by having the blood and tissues of the body manufacture substances that will not only neutralize the poisons thrown into the tissues and circulation by the germs, but which will make the body tissues and fluids an undesirable home for the germs.

In *some infectious diseases*, Nature is able to accomplish this result with considerable success. Not so, however, as regards tuberculosis.

To *help stimulate the body to produce these substances* which are antagonistic to the germs and the poisons which the germs produce—in other words, to stimulate the body to build up an *artificial immunity*, if possible, a line of remedies known under the general name of *tuberculins* have been brought out. These, however, cannot be discussed here. The tuberculins, more than any other remedies used in tuberculosis, require skill in their application. They must never be given except by a physician, and they are mentioned here simply to make this brief discussion complete.

THE PHYSICIAN AS A CURATIVE FACTOR.

A word about the physician. The patient with tuberculosis who wishes to get well will content himself with *only one physician at a time*. Such a patient will *carefully obey the instructions* of the physician, *will not talk* about his condition to other persons and *will not let other persons give him advice*. Time and again, the great harm of such advice has been shown.

The disease is treacherous and hard enough to overcome at best, without having the patient in a constant whirlpool of doubt, wondering whether to

do or to experiment with this, that or the other remedy, advised by this, that or the other person who without intelligent knowledge or learning, is sure that his particular remedy or advice will lead to prompt and decisive cure. Where trained and experienced physicians fail, the chances of failure is far greater by those who have no such professional learning or experience.

Let your *physician be your guide*. He will map out your mode of life, will try to keep you from falling into pit-falls of the hygienic-dietetic life and will advise those lines of medication which in his judgment seem best for your particular case. He will individualize his treatment to make it fit your particular case. *Individualization in treatment is of the highest importance in tuberculosis* and this makes necessary, skilled medical supervision.

III. PREVENTIVE MEASURES.

THE PREVENTION OF THE EXCITING CAUSE.

A person with tuberculosis usually *acquires the disease, directly or indirectly*, from some other person who has tuberculosis.

The disease is usually *transferred* from the sick person *through the sputum* which is coughed up by the sick person.

This sputum contains the *little plant or germ which is the direct cause of the disease*. This parasitic germ is and must be present always in the tissues, where there is tuberculosis.

This germ or bacillus of tuberculosis *lives for months in dark places*, but the *sunlight and free air kill it in a few hours*. Herein lies the great importance of flooding all rooms of the house with air and sunlight, these being far better disinfectants than those purchased in the drug shops.

The *best way to prevent the action of this tuberculosis germ* is to keep it from getting into the bodies of healthy per-

sons, and the easiest way of doing this is to *destroy all sputum that is coughed up.*

This is accomplished by expectorating the sputum into *cloths or papers* or paper spit cups that can be burned, or into spit cups or cuspidors that either contain a *disinfectant solution* like five per cent. carbolic acid or ordinary lye, or that may be steamed or boiled or otherwise disinfected.

Don't let the sputum dry anywhere, and so prevent it from being blown about, to get into the air we breathe, the food we eat, or the things we handle.

For the same reason *dry dusting should be avoided,* damp cloths and brooms being better always.

Persons sick with tuberculosis:

Should not speak or cough into other people's faces.

Should not kiss people or children.

Should wash their hands before meals and whenever sputum gets on them.

Should have separate eating utensils, which should be *separately boiled.*

Should have a separate bed, and, if possible, a *separate well lighted and ventilated room* in which to live.

In short, to prevent tuberculosis, the person who has the disease and who is coughing up the germ laden sputum, must allow no lapse in his habits or in his vigilance of trying to keep this germ laden sputum from directly or indirectly reaching other human beings.

As a possible source of infection, *tuberculous dairy cattle* must not be forgotten. The milk of a herd that has been tested and found free from tuberculosis is always to be preferred.

THE PREVENTION OF THE PREDISPOSING CAUSES.

Through the discovery of the germ or bacillus of tuberculosis and the *elimination of the theory of hereditary transmission* must disappear also much of the fatalism with which tuberculosis has been accepted by many persons.

The general groups into which the predisposing causes fall may be said to be bodily weakness or lack of resistance resulting either from hereditary enfeeblement, over-work, under-feeding, previous diseases, vicious habits, over-crowding or general unhygienic mode of living.

Hereditary enfeeblement.—Many infants are born weak. Unless such children can be developed physically, they are apt to give but feeble resistance to disease. Such children should be guarded from over-study and should be made to spend much time out of doors.

Over-work, mental or physical, whether from necessity or from choice, through the bodily fatigue and weakness induced, is responsible for many infections from tuberculosis.

Certain occupations also, like those with irritating dusts, frequent temperature variations, confined positions and so on favor the production of bodily or pulmonary weakness.

Under-feeding, whether from insufficient or improper foods, is another factor responsible for much bodily weakness. The food should be *eaten slowly,* and should always be of a nutritious nature. If cow's milk is used, it should be obtained, if possible, from a *dairy having no tuberculous cattle.*

Previous diseases—and particularly in childhood, measles and whooping cough, and later in life, grippe, pneumonia and typhoid—often induce a lack of resistance, which through neglect, or in adult persons by too early return to work, place such persons in excellent receptive condition for infection.

A cough that continues more than several weeks, especially if associated with a tired feeling, loss of appetite or weight, should be taken as a very sufficient reason for having a physician investigate the cause and nature of the cough.

Vicious habits, particularly over-indulgence in alcoholic drinks, to the neg-

lect of good food, often results in lowered health and predisposition to tuberculosis.

Over-crowding is a far too frequent cause in the production of weakened bodies. Workshops, schoolrooms, and homes seem often to be constructed to keep air out rather than to let it in.

In many rooms, persons are crowded into a limited air-space with almost utter disregard to ventilation.

To breathe vitiated air is at all times harmful.

An impression prevails also that night air is harmful and that open windows at night are dangerous. This is the contrary of the actual facts. *Outside night air is almost invariably more pure* than that of a closed room in which the oxygen is being consumed by human beings, lamps or gas.

DEPARTMENTAL

DEPARTMENT OF TUBERCULOSIS.

EDITED BY F. M. POTTENGER, M.D., MONROVIA, CAL.

CLIMATE.

The question of climate in the treatment of tuberculosis is an old one, yet it is one that is ever new. Formerly, before the study of tuberculosis was as popular as it is today, it was the general belief that persons with tuberculosis could only have opportunity of cure through climatic change; and the principle advice which patients received at the hands of physicians was to go to the mountains as soon as possible, after a diagnosis was made.

Physicians who have practiced in health resorts, knowing the great improvement made by patients when a change of climate had been effected, were loud in their praises of various sections of the country. In this way certain favored spots such as the high Alps and the Riviera in Europe, and the Rocky Mountain region, especially Colorado, and the deserts of the Southwest in America became very popular, and hundreds and thousands of pulmonary invalids visited these sections annually, many of whom received benefit, and many harm. The harmful effect, which was often produced on patients, depended on their often being in a hopeless condition when sent away, but also a great deal on a lack of ap-

preciation of the climatic conditions to which the patients were being sent, and a lack of understanding as to whether or not their pecuniary condition would enable them to meet the demands in the climatic resort. So many poor people, without visible means of support, gravitated to these resorts that they became burdensome; not only did they become burdensome, but they did not derive benefit, but were made worse because they could not meet the demands made upon them in their new surroundings. This fact, together with greater knowledge of the subject of tuberculosis, started the movement for the home treatment of tuberculosis. So at last it has been found that patients can be cured in all climates, and this makes many physicians who practice in unfavorable climates believe that change of climate is unnecessary, and, consequently, there has sprung up a class who refuse to recognize any benefit whatever as coming from change of climate. This is just as narrow a policy as the one which is often maintained by those, who practice in health resorts, who proclaim that climate is the only cure for tuberculosis. Somewhere between the two the truth will be found.

I think a safe statement of the question of climate is this: The best place to treat a patient who is suffering from tuberculosis is where he can have the most intelligent treatment under the most favorable circumstances for his cure. This means that people who have sufficient means to go to a favored clime, and at the same time have the care of intelligent physicians and good general surroundings, will have a better chance of cure, when the factor of climate has been suitably added to other measures, than they would under unfavorable climatic surroundings. On the other hand, it means that those patients who are without the proper means of support and who are unable to sustain themselves under favorable climatic conditions in such a manner as to give them the opportunity to take advantage of the climate, are better off at home where they can have better care and less worries. In other words, climate is only one factor in many for the cure of tuberculosis; and while it is much easier for patients to take the open-air cure in a mild climate than it is in one that is rigorous, with frequent changes of weather, at the same time we are forced to the conclusion that the most important factor in the treatment of tuberculosis is intelligent medical care.

It is a pleasure to bring before the readers of the *PRACTITIONER* the following abstracts of papers read at the International Tuberculosis Congress, one by Dr. Frederic I. Knight of Boston, who is one of the ablest authorities on climate in this country. Another by Dr. Edson of Denver, who understands well the conditions from the standpoint of a health resort. These two papers are very sane because they seem to express in an impartial way the effect that can be brought about by proper climatic change.

No matter how prejudicial one is in favor of home treatment, he must

recognize the benefits of climatic change, providing this change is made under favorable circumstances. Great honor is due those who are working for home treatment, because more than 90 per cent. of our people must be treated at home.

"COMPARATIVE IMPORTANCE OF TREATMENT
IN SANATORIA NEAR AT HAND AND
AN ENTIRE CHANGE OF CLIMATE."

By Dr. Frederic I. Knight, Boston.

Modern treatment of tuberculosis directed to the individual affected rather than to the disease.

Sanatorium treatment simply the most efficient method of subjecting a patient to proper treatment.

We cannot strictly compare sanatorium and climatic treatment, as climate is a factor of all treatment.

If the proposition is as to the relative merits of sanatorium treatment near home, and an unrestrained life under radically changed climatic conditions, the choice would usually be for the former.

Present status of sanatorium treatment.

A radical change in meteorologic conditions sometimes necessary for its effect on metabolism, but the relative value of the climatic factor will only be determined by a careful comparison of statistics of observations made under similar conditions in different parts of the world.

"THE COMPARATIVE VALUE OF CHANGE OF
CLIMATE AND OF TREATMENT IN
SANATORIA NEAR AT HAND IN
CASES OF PULMONARY TUBER-
CULOSIS."

By Dr. Carroll E. Edson, A.M., Denver.

An outdoor life is one of the essential aids to the cure of pulmonary tuberculosis.

Climate is the sum total of the meteorologic conditions prevailing in a given region over considerable periods of time.

The climatic surroundings of the patient have to be considered. Consciously, or unconsciously, we select a climate for every patient, even when we keep him at home.

That climate is most favorable which most readily permits an outdoor life.

A change of climate will be of advantage to a patient, if we can thereby place him under meteorologic conditions which to a greater degree than before, and more constantly, permit him to lead the necessary outdoor life with ease, safety and economy of vital expenditure.

The accompanying change of scene and surroundings may be expected to act advantageously in an individual way.

In making any proposed change of climate, attention must be given to the facilities in the new region for obtaining suitable food, accommodation, care and medical supervision.

If these conditions can be fulfilled in a better climate as well as at home, the patient should be advised to make the change.

If the patient's financial, social or domestic circumstances are such that he cannot in the new climate secure proper and sufficient food, accommodation, care and medical attention, or if his mental attitude is such as to make separation from home inadvisable, he should not be sent away.

Another important question that came up at the Congress was the home treatment versus sanatorium treatment. Several papers dealt with this subject, and I offer abstracts from those of Dr. Minor of Asheville, N. C., and Dr. Latham of London:

Of late there has been a certain disappointment on the part of certain men at the results which have been obtained in sanatoria. This is due to several causes. In the first place, people have expected too much from sanatoria. A sanatorium is not a cure for tuberculosis. Like everything else there are

good sanatoria and bad sanatoria. Many do not really deserve the name. A true sanatorium is simply a place where a man who thoroughly understands tuberculosis can treat his patients under the very best circumstances; and I think it is safe to say that any man who can get good results outside of an institution could get better results in one, providing he is able to conduct it in the way it should be conducted. A sanatorium depends entirely on the man at its head. The idea of building an institution and then getting some man to become the head of it and putting him in charge without regard as to his fitness for the work, as is so often done, can not help but injure the cause of sanatorium treatment.

There should be no quarrel whatever between sanatorium treatment of tuberculosis and the treatment of tuberculosis on the outside. If patients are able to avail themselves of treatment in properly managed sanatoria they will greatly increase their chances of cure and they will secure the result in shorter time because everything about such institutions is, or ought to be, conducted in such a manner that it encourages them to do those things which will help to build them up and remove from them the temptations to do the things which will tear them down.

It is well recognized today that the hospital is the best place to treat acute illnesses. At the same time good results are obtained in the homes. The reason why better results are obtained in hospitals in acute illnesses holds also for the treatment of tuberculosis.

There is one further argument in favor of sanatorium as compared with home treatment, which is not obtained in acute illnesses, and that is, that tuberculous patients feel well for so much of the time that when they are associating with well people they are constantly influenced and almost compelled

to do things which are harmful and prejudicial to their recovery.

I believe the matter of climatic change and sanatorium treatment when expressed in an impartial manner is just the same as that for any other illness. The patient suffering from tuberculosis does the best when he is put under those conditions which are most conducive to a cure; and surely no one will doubt but that a favorable climate is more conducive to cure than an unfavorable one. And no one will doubt but that ideal surroundings such as are found in the properly conducted institution are better than the unfavorable conditions which are usually found in the home or boarding-house.

"THE TREATMENT OF TUBERCULOSIS IN THE PATIENT'S HOME OR IN OTHER PLACES THAN SANATORIA."

By Charles L. Minor, Asheville.

A. Writer's conception of the meeting of "Home Treatment" as the treatment outside of closed sanatoria.

B. The hygienic and dietetic treatment is now universally recognized as a fundamental part of any and all rational treatment of pulmonary tuberculosis.

C. This method has usually been most carefully applied in closed sanatoria and it has been supposed that it could only be satisfactorily carried out in such institutions, but this "sanatorium treatment" as it is often called can, granted sufficient care and pains, be as well applied outside such places.

D. A study of the essential features of this method as to their adaptability outside of sanatoria.

These features are: 1. Careful personal medical oversight, strict discipline and close supervision. 2. Thorough instruction. 3. Systematic and hygienic arrangement of the patient's life. 4. Effect of the example of other patients and of the "esprit du corps." 5. Nurs-

ing. 6. Proper housing location and feeding. 7. Suitable climatic conditions.

E. A consideration as to whether these can be gotten outside closed sanatoria.

F. All are obtainable unless the patient is handled alone in his own home when those under four are missing, or unless he is so poor that those under seven cannot be had, but it is recognized that if the advantages thus gotten cannot be had, excellent results can in many cases still be had without them.

G. Difficulties of handling the very poor, ignorant and criminal. The handling of these a sociological question, more than a medical.

H. Handling a chronic disease like pulmonary tuberculosis calls for different methods than those applicable to the ordinary acute disease. The former call for much more detailed work and closer personal relations and unfortunately chronic cases are often by the profession regarded as uninteresting and tedious and unfruitful of results, a very erroneous view.

I. Individual details of the handling of a hygienic and dietetic cure are so well known they will not be entered on here. The most important thing is the personal qualities and relations of patient and physician and these will be dwelt on.

First, as to the patient, the needed qualities if he is to recover, his discipline, management and teaching.

Second, as to the physician, his personality and the qualities he needs in handling tuberculosis cases.

1. As to the patient. Will power and self-control—determination and earnestness—patience and cheerfulness—intelligence and enthusiasm and interest—social and financial position—methods of management and teaching.

2. As to the doctor. Personality and will power, forcefulness, teaching abil-

ity, enthusiasm, teaching ability detail work.

J. Summing up.

"THE VALUE OF SANATORIUM TREATMENT."

By Dr. Arthur Latham, London.

Sanatoriums are essential to the successful treatment of pulmonary tuberculosis on a large scale, and are essential to any scheme directed toward the eradication of the disease, provided they are used intelligently as an important link in a properly co-ordinated system of attack.

The value of sanatoriums does not meet with universal acceptance for several reasons.

1. The majority of sanatoriums are inefficient.

2. Sanatoriums have been regarded by some as sufficient in themselves, and as certain to cure nearly every case of consumption.

3. The erection and the maintenance of sanatoriums cost too much.

4. It is held by many that it is impossible to provide the necessary funds to pay for the treatment of the majority of sufferers.

5. The difficulty of making arrangements for maintaining the family when the bread winner is at the sanatorium and in finding suitable work for him on his return to his home.

The best proof of the value of sanatorium treatment is obtained from a study of the results of the treatment of consumption before and after the adoption of sanatorium methods. Here follow statistics.

The value of sanatorium methods is greatly increased by the use of tuberculin.

Sanatorium treatment is of great value from an educational point of view. The value of sanatorium treatment has been enhanced by the recent additions to our knowledge, and more especially with regard to auto-inoculation, and the response of the body to tuberculin.

APOMORPHINE.

In the *New York Medical Journal*, M. F. Simpson relates a personal experience with this drug. He injected 1-10 grain hypodermically; half an hour later a peculiar "all-gone" feeling commenced. The arms became heavy, muscular force throughout the body was paralyzed, vomiting and catharsis continued for an hour. He fell and could not rise, the neck muscles refused to support the head, the jaw dropped and saliva dribbled. During most of the time the mind was clear, but for a few seconds a mental hebetude would occur. The arterial pressure seemed to the victim to be normal, muscular relaxation continued, and he fell asleep, awakening next morning. The muscular relaxation was discernible for twenty-four hours. He was credited with an idiosyncrasy.

ASIATIC CHOLERA.

Cocaine and creosote were given to control vomiting, later one or two chlorodyne tablets, then glonoin and digitalis in heroic doses till the pulse was felt at the wrist; then four ounces tincture of eucalyptus, two teaspoonfuls of camphor spirit, one-half teaspoonful of tincture of capsicum, at one dose, in an equal quantity of water. Not the smallest particle of food was given for thirty-six hours. To control bowel movement a synthetic form of tannic acid was given, in ten to twenty-grain doses every hour. The equivalent of 120 grains of tannic acid was often given in twenty-four hours. Treatment by saline transfusion did not prove satisfactory.

HELP NOT HINDRANCE.

Any remedy employed for the cure or amelioration of disease must be one whose action looks toward the righting of that wrong, and must never in any way impede the existing efforts of nature to right the wrong, but must act as a helper or assistant to the efforts of nature.

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EDITORIAL

VACCINATION AND RE-VACCINATION.

The symposium on vaccination recently held at a meeting of the Philadelphia County Medical Society and printed in the *New York Medical Journal* of January 16th, was of such a character for public good that all medical men should take it seriously. It is quite unnecessary with our present knowledge of small-pox to think there are fewer advocates for the use of the immortal Jenner's discovery; but every now and then it is necessary to take account of stock and to know just where we do stand. In time of peace preparations must be made, especially since the anti-vaccinationists are constantly at work and can do their greatest harm when there apparently seems no cause for alarm. Physicians must ever be watchful over their patients and those entrusted to their care, in regard

to vaccination and re-vaccination, that isolated cases of small-pox may never cause an epidemic.

The papers were presented by Dr. Alexander C. Abbott, chief of the health department, Dr. Jay F. Schamberg, Dr. Wm. H. Welch, and the legal aspects of vaccination by Attorney H. L. Carson. Dr. Abbott emphasized what Philadelphia has done and can do to prevent the contagion of small-pox, and gave interesting experiences of the outbreak of 1903. There is no state law in Pennsylvania for compulsory vaccination, but there is sufficient law carried out by the bureau of health in Philadelphia to prevent any further serious outbreak. This department pays especial attention to systematic vaccination and every medical inspector for any disease makes inquiry about vaccination, reporting unvaccinated persons who are then vaccinated by the family

doctor or the health bureau. The outbreak brought the co-operation of the lay people, employers of labor, department stores, hotels, etc., who required certificates of successful vaccination from their employees. At this time the hospitals required of visitors a similar certificate, and a personal list of unsuccessful vaccinations were sent to the Board of Health. Since that day this has been kept up by at least one hospital. We all know how difficult it is to choose visitors to hospitals and what promiscuous people may enter. It would be well if all hospitals could enforce this rule during the period of peace and not wait for an epidemic to make it necessary.

He showed how mistaken the anti-vaccinationists were in saying that vaccination causes serious results, and told how such results came from other causes, namely, improper treatment, uncleanliness, dirty clothes, and so forth.

Dr. Schamberg gives historical facts of different epidemics before Jenner's discovery, and figures proving the great efficacy of vaccination to prevent small-pox. The interesting fact that in the days before vaccination the adult population of many countries represented chiefly the survivors of small-pox in childhood. He says: "It is now excessively rare for a successfully vaccinated child under 5 years of age to die of the small-pox; it is even uncommon for a successfully vaccinated child under ten years to die of the disease, as was adequately proved in the testimony presented before the British Royal Commission on Vaccination."

An argument used by opponents of vaccination is that the decline of small-pox is due to the improvement of sanitary conditions. If this were true, other diseases that are as contagious would decline in like proportions. As a matter of fact, since vaccination, during the same period in England that the mortality of small-pox declined 72 per cent, measles only fell 9 per cent, and whooping cough 1 per cent. Apropos of this in the interesting discussion that followed, Dr. Keen called attention to the experience in Puerto Rico after this country assumed control, and during a severe epidemic of small-pox 800,000 people were vaccinated and within four months the disease was eradicated, and this without any change in sanitary conditions. To exterminate small-pox Schramberg says we must not only have universal vaccination, but universal re-vaccination. Germany has carried out this idea, and is freest from small-pox of any important country. This is done under a compulsory law of vaccination and re-vaccination of 1874, and since then Germany has had no epidemic.

Dr. Welch's remarks were chiefly at the "so-called" dangers of vaccination. He had taken pains to find out the truth of newspaper reports on deaths due to vaccination and those in anti-vaccination literature, and had found that deaths were caused by diseases independent of vaccination, or though some infection introduced in the course of vaccination by gross carelessness or impure vaccine. He tells us that more than 4000 cases of small-pox were admitted to the Municipal Hospital in

Philadelphia, and among these there was not a single person who had been successfully vaccinated within five years; there were very few admissions among these who had been successfully vaccinated within ten years, and no deaths. He gives interesting facts of Jenner's life, his unselfishness, his great pains in demonstration to others, encouragement to professional brothers, and discouragement to improper methods employed by others. He pays the deserving high tribute to Waterhouse for the work in this country, ending by saying "With the safeguards which at the present time surround the propagation of calf lymph, I feel perfectly sure in saying that if the individual is in a normal condition when vaccinated, if the vaccination is conducted with due regard to surgical cleanliness, and if the vesicle is properly guarded until the scab forms and falls off naturally, no dangerous consequences need be feared."

The practitioner urges that all readers take this lesson to heart and see that not only the children under their care are successfully vaccinated, but also at the proper time that re-vaccination be demanded.

W. JARVIS BARLOW.

ANNUAL ELECTION OF THE L. A. COUNTY MEDICAL ASSOCIATION.

At the annual meeting of the Los Angeles County Medical Association, Dr. Stanley P. Black of Pasadena was elected president, Dr. E. W. Fleming of Los Angeles was elected vice-president, Dr. W. W. Richardson of Los Angeles secretary, and as new members to the Council, Dr. George L. Cole of Los An-

geles, Dr. F. M. Pottenger of Monrovia and Dr. F. C. E. Mattison of Pasadena.

Dr. Stanley P. Black has started his administration with an aggressive effort to give the meetings such excellent material that a large attendance may be constantly looked for. We regard the plan of a program committee, with work mapped out for months ahead, as an excellent idea, and one which will mean an improved character in the papers and discussions presented.

No matter what our affiliations and interests in other societies may be, let us always remember that it is only through our county unit that we can gain admission to our State and National Associations. Furthermore, that it is through the county units that the great work of raising the tone of medical education and medical standards is now going on. This work will in the end do far more for the benefit of the profession of medicine and for humanity also, than all the associations of experts which may exist. It is when the mass as a whole is improved and moves forward, that real world's progress is made.

Let us all, therefore, keep in mind our obligations to our county association, since it is through that and kindred organizations that our profession is largely safeguarded, and because through it alone have we a right to expect to be the recipient of honors from our State and National Associations.

Let all resolve to help make the record of the Los Angeles County Medical Association during the coming year an enviable one. THE PRACTITIONER extends to its officers its best wishes for a most successful culmination of their efforts.

K.

EDITORIAL NOTES

Dr. M. G. Marden is now the manager of the Castle Hot Springs of Arizona.

Dr. E. S. Goodhue, of Holoaloa, Hawaii, expects to spend a few days in Los Angeles on his way to Europe.

Dr. C. C. Browning recently delivered a lecture with stereopticon slides in the Santa Barbara High School.

The Board of Supervisors at Tucson, Arizona, has chosen Dr. A. Morrison as County Physician at a salary of \$25 per month.

Orthotic Albuminuria: Its Relation to Tuberculosis is the title of a reprint by Francis T. B. Felt, M.D., Las Vegas, New Mexico.

Drs. Hacham and Bishop have organized La Solana Sanatorium Co. with \$50,000 capital, and propose to establish an institution in Tombstone, Arizona.

The Pomona Valley hospital has elected the following officer for the ensuing year: Dr. F. W. Thomas, president; Dr. J. K. Swindt, secretary.

The Los Angeles Health Department has begun issuing a monthly bulletin full of valuable information for the laity. This is a valuable step forward.

Dr. Howard Crutcher and Miss Ellen Victoria Nilsson both of Roswell, New Mexico, were married at the residence of the bride's parents on Christmas Eve.

Dr. Albert Van der Veer of Albany, New York, who is spending the winter in Pasadena, Los Angeles and San Diego, was the first surgeon in the world to operate for goiter.

The San Diego County Medical Society have chosen the following officers for 1909: Dr. J. A. Parks, president; Dr. H. C. Outman, vice-president; Dr. R. E. Austin, secretary and treasurer.

J. F. Paryin, who was formerly a resident of Bisbee, being employed as watchman at the Copper Queen Hotel, was bitten by a hydrophobia skunk at his ranch in the Swisshelm Mountains two days ago.

Dr. William Reynolds Severson, formerly of Los Angeles, has located in Goldfield, Nevada. Dr. Severson graduated from the College of Physicians and Surgeons, Chicago, class of 1901.

Drs. Garrett L. Hogan, R. G. Cotter and other Los Angeles Alumni of the Albany Medical College gave Dr. Albert Van der Veer a luncheon at the California Club, January 20th. There were plates for twenty.

"Arizona Bibliography, a Private Collection of Arizoniana," by J. A. Munk, M.D., is a valuable catalogue of the author's library of books on Arizona. This catalogue consists of 98 pages, recording about 2,000 books.

Dr. Royal Reynolds, University of Pennsylvania, class of 1906, then resident physician Philadelphia General Hospital for eighteen months, has taken offices with Drs. Hitchcock and Fulton, Grosse Building, Los Angeles.

A strong effort will be made to have the Arizona legislature now in session make provision for a laboratory, in connection with the University of Arizona at Tucson, for the free chemical and bacteriological examination of milk and water.

Dr. Bryant would be glad to have any interesting cases referred to him at his surgical clinic at the Sister's Hospital. Even though the case may be absolutely indigent the doctor will see that the hospital fee is paid if the case can be used advantageously in his clinic.

The Public Health and United States Marine Hospital service recommends the following formula for poisoning ground squirrels: Strychnia sulph., 1 ounce; borax, 2 ounces; crushed wheat, rolled oats, acorn meal or corn meal, 20 pounds.

The Territorial Asylum for the Insane at Phoenix is to have a new hospital building. It will be built of cement and the construction and appointments will be of the most modern and approved types. The work has already been begun.

Dr. Charles Charlton of Los Angeles, who was described by the newspapers as "a white-haired physician 71 years of age," was recently fined \$1500 in the Federal court by a Los Angeles judge for "using the mails to further an illegal medical practice."

Prof. James D. Graham, Superintendent of Long Beach Public Schools, has been to Sacramento to get an anti-vaccination law passed. Governor Gillette told the professor frankly that he would veto any anti-vaccination law that might be passed.

Dr. Sumner J. Quint, senior police surgeon, was recently presented by a few of his friends with a handsome gold star. The Chief of Police made the presentation and spoke of the friendship the city officials held for the surgeon and their admiration of his work.

Work will be begun at once on the new Whitwell Hospital and Sanatorium at Tucson, Arizona, and the buildings will be rapidly pushed to completion. The new buildings will be even larger and more nicely appointed than those that were destroyed by fire a few weeks ago.

The Los Angeles County Hospital is being greatly improved by the erection of new buildings at a cost of \$160,000.

Drs. Geo. L. Cole and Geo. H. Kress

have been delivering addresses before the labor organizations of Los Angeles on the prevention and cure of tuberculosis.

Dr. Edwin R. Chadbourne, 53, died in Pasadena, January 10, of emphysema and bronchitis. The doctor graduated from the College of physicians and Surgeons, New York, class of 1879, and had been practicing in Pasadena 20 years. He was a native of Budgeton, Maine, and was a bachelor.

During the last year Germany consumed 120,000,000 gallons of industrial alcohol for lighting, heating, and other purposes. The German Emperor has made the matter one of his pet subjects. One of his palaces near Berlin is lighted entirely by alcohol lamps, and the use of alcohol in that country is largely displacing gasoline and petroleum.

The Public Health and Marine Hospital Service of the United States has issued Hygienic Laboratory Bulletin No. 46, entitled Hepatozoon Pernicosum (N. G. N. S. P.); A Haemogregarine Pathogenic for white rats; with a description of the Sexual Cycle in the Intermediate Host, a Mite (*Lelaps Echidninus*) by W. W. Miller. A valuable document.

At a meeting of the council held January 15, 1909, the following were elected to membership in the Los Angeles County Medical Association: Drs. Francis B. Dwire, Los Angeles County Farm; J. B. Cutter, 319 Kerckhoff Bldg.; P. V. K. Johnson, Wright & Callender Bldg.; C. H. Montgomery, 420 Laughlin Bldg.; W. L. Huggins, 301 Broadway Central Bldg.

The Yavapai County Medical Society has decided to consider selected portions of the "Postgraduate Course for County Societies," as outlined in the *Journal of the A. M. A.*, at its weekly meetings. During February and part of March the general subject of study will be "Infectious Diseases."

tion, Immunity and Serum Therapy," as outlined in the *Journal* of Sept. 19, 1908, and following numbers.

A large conference of graduates of the school and citizens of Phoenix was held at the Indian School, Phoenix, January 23, 1909. Addresses were delivered by Dr. Murphy of Washington on Tuberculosis; by Dr. White, the resident physician of the school, on Trachoma; by Dr. Roy Thomas of Phoenix on Hygiene; and by Dr. Francis H. Redewill of Phoenix on Sanitation.

The Arizona Board of Medical Examiners is said to have revoked the licenses of the following physicians: Dr. F. C. S. Sanders, from Cambridge University, England; and Dr. R. A. Aiton, from the Wisconsin Electric College. The charge in each case is said to have been unprofessional conduct.

Dr. D. C. Barber, who for nine years has been superintendent of the Los Angeles Hospital and was succeeded February 1st by Dr. Whitman, will now devote himself entirely to private practice with offices in the Security Building, corner Fifth and Springs streets. Dr. Barker has made an able superintendent and has had many difficulties and complications, political and professional, to overcome.

Dr. D. B. Northrup has been reappointed county physician of San Diego county at a salary of \$175 per month, and Dr. Nathan Hunt has been appointed resident physician of the county hospital at a salary of \$100 per month. Dr. Northrup graduated from the Kansas City College of Physicians and Surgeons, class of 1880. Dr. Hunt graduated from the Medical Department of the University of Iowa, class of 1872.

Dr. Albert Vander Veer, the distinguished surgeon of Albany, New York, received a marked ovation at the Bicknell dinner. Dr. Vander Veer was an honor guest and when his presence

was known he was soon surrounded by former students of his who are now prominent practitioners in Los Angeles. Between the regular toasts Dr. Vander Veer was introduced and his delightful remarks were received with great applause.

At the annual meeting of the Pima County Medical Society January 12, 1909, the following officers were elected: President, J. W. Lennox of Helvetia; vice-president, H. W. Fenner of Tucson; and secretary-treasurer, A. G. Schnabel of Tucson. A new fee bill was adopted and resolutions against the practice of criminal abortions were passed. The society agreed to assist in the prosecution of anyone known to perform a criminal abortion.

At the January meeting of the Arizona Board of Medical Examiners, Dr. S. W. Hartt, a graduate of the College of Physicians and Surgeons, Baltimore, 1889, and Dr. J. M. Pearson, Georgetown University, 1907, passed satisfactory examinations and were awarded licenses to practice medicine in the Territory. There were two failures. One was a graduate of the Western Reserve University of Cleveland, 1896, and the other of the Willamette Medical College, 1908.

The Indiana Medical Journal has merged with *The Central States Medical Monitor* under the name of *The Indianapolis Medical Journal*. Dr. S. E. Earp will continue as editor, and Dr. A. W. Brayton, formerly of *The Indiana Medical Journal*, will be a member of the editorial force. *The Monitor* has had an enviable record for eleven years, and the same may be said of *The Indiana Medical Journal* for a period of eighteen years, part of which time it was the only medical journal in Indiana.

Miss Ruth Wiggins, a young woman who sued Dr. L. V. Devitt for damages of \$5000, alleging that the physician

was negligent when he vaccinated her a year ago, lost her case in the Superior Court of Los Angeles, Judge Oster, sitting for Judge Hutton, giving judgment in favor of the defendant. Dr. Devitt claimed that the wound caused by the vaccine points had healed within the usual period and that the woman's later trouble was caused by her own carelessness.

Among the many very acceptable sayings of the speakers at the Bicknell banquet none was received with more applause than the beautiful tribute paid Dr. Elizabeth Follansbee by Dr. Wm. A. Edwards. Dr. Follansbee has been practicing in Los Angeles over 25 years, and she is held in the highest esteem by the medical profession. Her influence for good among the many medical students she has taught has been incalculable. She deserves God's blessing and man's applause.

The medical men of the Northern counties of Arizona are already beginning to make arrangements to entertain the Arizona Medical Association in Prescott, at its next annual meeting. Unless something unforeseen occurs the new clubhouse of the Yavapai Club will be completed and opened before that meeting occurs, and will afford a convenient place for the meetings of the Association and the entertainment of the visiting members. Already a number of interesting papers have been promised and the meeting will certainly be a successful and enjoyable one.

Dr. A. J. Murphy, who is investigating tuberculosis among the Indians for the United States government, said in a recent address before the Maricopa County (Phoenix) Medical Society: "The government is waking up to the fact that consumption among the Indians is more prevalent than in any other race. After the Indian, comes the negro. The white race is far more immune than either of the others. The

government will fight the disease by educating the Indians and by building sanatoria and camps. We will have to devise some plan for the care of students of public schools, especially those at boarding schools and dormitories. The policy has been to send them to their homes and treat them there."

The annual meeting of the Maricopa County Medical Society was held January 2, 1909, in the Knights of Pythias Hall, Phoenix. After a most interesting program of papers and addresses a banquet was served. The hall was beautifully decorated for the occasion, and a very interesting and enjoyable evening was spent. The program was as follows:

Oration—"Relation of Law to Medicine," Mr. Geo. Purdy Bullard, District Attorney.

Address—"Tuberculosis Among the Indians," Dr. Murphy, U. S. Gov. Inspector of Indian Reservations.

Paper—"Treatment and Cure of 300 Cases of Scabies Among Indians," Dr. Francis H. Redewill, Phoenix.

Paper—"Pathology, Diagnosis and Treatment of Trachoma Among Indians," Presentation of cases. Dr. White, Indian School, Phoenix.

The Santa Barbara County Board of Supervisors have elected Dr. A. P. Paulding Health Officer for Santa Maria and vicinity at a salary of \$200 per annum; and Dr. Charles Pius Health Officer for Guadalupe and Betteravia Precincts, at a salary of \$100 per annum; and Dr. J. C. Bainbridge, County Physician and Health Officer at a salary of \$2000 per annum; and Dr. Reuben W. Hill Health Officer for the Carpenteria and Summerland sections at \$75 per annum; Dr. William J. Lewis Health Officer for the Fourth Judicial Township at \$125 per annum, and Dr. F. A. Brown Health Officer for the Fourth Supervisorial District at a salary of \$250 per annum.

The Board of Supervisors of Los Angeles County on January 17th elected Dr. Charles H. Whitman as superintendent of the County Hospital vice Dr. D. C. Barber whose term had expired. Dr. Whitman graduated from

the College of Physicians and Surgeons, Chicago, class of 1886. Dr. Whitman's professional life has been spent principally in San Francisco and Los Angeles. He is held in high esteem by the members of the profession who know him and we predict that he will make an excellent superintendent. Dr. Thomas G. Finlay, graduate of the College of Medicine of the University of Southern California, class of 1907, was chosen assistant superintendent succeeding Dr. J. M. Dunsmoor.

Dr. S. Adolphus Knopf, in a letter to us referring to the notice that appeared in the *SOUTHERN CALIFORNIA PRACTITIONER* for January, of the settlement of his suit against the North American, expresses the fear that our readers might think he made money out of the settlement. Dr. Knopf says: "Dr. Farrand, through whose hands the original check passed, is witness that, besides my actual expenses, only \$5000 were paid me by the North American Co." Dr. Knopf also encloses receipt for the \$5000, signed by Dr. Livingston Farrand, executive secretary of the National Association for the Study and Prevention of Tuberculosis. We are glad to right this, although we would have all been glad if Dr. Knopf had received \$10,000 more, to have in a measure paid him for his loss of time and mental anguish. Yet Dr. Knopf's determination not to retain one dollar himself places him in that greatest roll of fame which is composed of those who love their fellow-man.

We disinfect our rooms with burning sulphur; and so men did before the time of Homer. We purge sometimes with rhubarb, especially when some subsequent astringent influence is desirable, and so did the old Arabians for the same reason. The value of castor oil in its chief use was familiar, probably for ages, to the natives of the East and of the West Indies before it was made

known in Europe by a physician from Antigua 150 years ago. Aloes was employed in the same way long before the time of Dioscordies and Pliny. The knowledge of the influence of ergot in parturition we owe to the peasants of Germany, and the use of male fern for tapeworm goes back to the old Greeks and Romans. The employment of mercury in syphilis by inunction and fumigation, which our nineteenth century therapeutics regard with such satisfaction, seems to go back to the time of the Crusaders, and it is said that its use can be traced in Malabar back to the ninth century.

On Christmas Day Dr. Charles W. Bryson, Dean of the College of Physicians and Surgeons of Los Angeles, and Miss Myrtle Frances Traugher were married at the Immanuel Presbyterian Church, Los Angeles, by Rev. Hugh K. Walker, the pastor. A few evenings before Dr. Bryson was guest of honor at a banquet given by the faculty of the college in the banquet room of the Jonathan Club. Decorations for the table, at which covers were laid for twenty-five, were in carnations, American beauty roses and ferns. Dr. James T. Fisher was toastmaster of the evening. A silver chafing set, donated by the members of the faculty, was presented to Dr. Bryson by Dr. Will Rogers. Dr. W. N. Horton spoke on "Pleasures of Married Life," and Dr. Sylvester Gwaltney gave an interesting address on "The Joys of Bachelorhood." Among those present were: Doctors Henry Herbert, J. T. McCoy, C. W. Bryson, Gochenaur, E. L. Waggoner, F. J. Kruill, C. W. Powell, A. S. Maiss, T. B. Wright, W. H. Jones, A. S. Miller, J. H. Seymour, Lavin, Walter Johnson, Sylvester Gwaltney, Horton, F. O. Yost, R. S. Petter, Pairs, J. J. Still, J. H. Schultz, Ralph B. Durfee and Mr. Earl Rogers.

MISCELLANEOUS

DR. FREDERICK T. BICKNELL HONORED BY HIS COLLEAGUES.

A notable tribute to the worth and work of an eminent physician was a complimentary banquet given at the California Club last night in honor of Dr. Frederick T. Bicknell, as modest a man as graces the profession.

For ten years Dr. Bicknell has been president of the California Hospital, which under his leadership has grown from a small beginning into a great institution. At the recent annual meeting of the trustees of the hospital he was retired at his own urgent request, and Dr. Everett R. Smith was elected to succeed him. His eminent standing as a man and physician has peculiar and fitting recognition in the invitation of seventy of his colleagues to accept at their hands the elaborate function given in his honor last night.

Their high appreciation of his character was further expressed in a beautiful memento of the occasion, and a token of the love his confreres bear him—a magnificent gold watch, appropriately inscribed and presented by Dr. Granville MacGowan.

The dinner was served in the elegant banquet room of the club, with a rich setting of crystal and plate and beautiful decoration of fragrant flowers.

POST-PRANDIAL FEAST.

The president of the evening was Dr. Everett R. Smith, the new president of the hospital, and Dr. Walter Lindley acted as toastmaster. The post-prandial feast was one full of appetizing reminiscence and encomium, frequently touching the tender heart of the unassuming guest of honor.

"Other Days" was the subject of a happy response by Dr. Melvin L. Moore, and Dr. W. W. Beckett told "Why We Love Him So." Dr. George L. Cole spoke of him as "Neighbor

and Friend," and Dr. Henry G. Brainerd's subject was, "Dr. Bicknell as a Consultant." Dr. William A. Edwards spoke of "Latter Days," and "Brother-in-law's Partner," engaged the attention of Dr. W. W. Hitchcock, Capt. J. D. Fredericks, District Attorney, a special guest, responded to "Dr. Bicknell as a Soldier;" Dr. Andrew Stewart Lobingier, to "The Physician True;" Dr. John C. Ferbett, to "Dr. Bicknell and the Young Doctor."

The poem, "The Son of Old Hippocrates," written for the occasion by John S. McGroarty was enthusiastically received, as read by the author; who was also a special guest.

Dr. MacGowan, in an appropriate speech, presented to the guest of honor a handsome gold watch in the name of his colleagues gathered about the tables. On the outside case it bears the initials, "F. T. B.," and on the inside the following inscription: "To Dr. F. T. Bicknell, ten years president of California Hospital, from his colleagues, 1909."

The response of Dr. Bicknell was a tender tribute to his fellow-physicians. At its close the company arose and sang "Auld Lang Syne."

THE GUESTS.

The following-named physicians, and the special guests named above, sat at the tables: Drs. Francis L. Anton, H. G. McNeil, W. W. Beckett, E. J. Cook, S. J. Quint, George L. Cole, F. S. Dillingham, Sernan W. Hastings, Dudley Fulton, John R. Haynes, W. W. Hitchcock, Walter Lindley, Raymond G. Taylor, P. R. McArthur, Rea Smith, E. R. Smith, P. G. Cotter, M. L. Moore, J. R. French, J. J. O'Brien, D. W. Edelman, J. H. Davisson, P. O. Sumdin, J. M. Dunsmoor, J. T. Stewart,

Garrett L. Hogan, C. W. Cook, W. W. Richardson, Thomas E. Taggart, E. M. Lazard, A. S. Lobingier, John C. Ferbert, Carl Kurtz, W. R. Molony, Frank Bullard, A. L. Bryant, R. P. McReynolds, C. W. Pierce, Elbert Wing, Lewis S. Thorpe, A. L. Macleish, R. W. Miller, William Duffield, H. G. Brainerd, G. S. Laubersheimer, W. S. Philip, H. Bert Ellis, A. C. Thorpe, William A. Edwards, J. J. Choate, W. G. Cochran, Joseph Kurtz, J. Evan Jenkins, Granville MacGowan, E. C. Moore, Joseph M. King, George W. Lasher, W. T. McArthur, H. M. Voorhies, Guy Cochran, Donald W. Skeel, A. C. Rogers, Frank W. Miller, Harris Garcelon, B. Sassella, E. A. Bryant, E. H. Wiley, C. W. Anderson, S. S. Salisbury, W. Jarvis Barlow, E. W. Fleming.—*The Los Angeles Daily Times*, January 17, 1909.

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FORMER DAYS—RESPONSE BY DR. MELVIN
L. MOORE.

Under ordinary circumstances, in a lesser cause than that which brings us here tonight, I should most respectfully beg to be excused from attempting to speak even to a topic which pulls so strongly on the heart strings of all of us as the subject assigned to me.

But, in view of the identity of our guest, remembering always the honor and respect in which this entire city holds him, it does indeed become a pleasure for me to say a few words by way of reminiscence of earlier days.

To this representative body of medical men of Los Angeles, I can only say that in Dr. Bicknell we have had, as all his acquaintances have had, not alone a friend in need, but a friend indeed, one whom it was a pleasure to know and a privilege to call by the sacred name of friend.

When I came to Los Angeles, twenty-five years ago, seeking health, I drifted into the office of Dr. F. T. Bicknell. I went to him that I might

obtain advice as to where and how I should live that I could regain my strength lost in the less lovely climate of the East.

Instantly, with his hearty handclasp and his cheery voice, the thought was borne home to me that here was not a stranger, but a friend, one whom I had known for years, and one who took an interest in me and in my personal welfare. His kindness and his freely given aid in my search for health impressed me to such an extent that, though a quarter of a century has passed, I have before me still a memory-picture of that first meeting.

From this incident I became attached to him; from that day to this he has held my love and respect, both grown greater with the years that have passed in sunshine and shadow over both of us.

At that time, as we became better acquainted, we talked of forming a partnership, and, two years later, this talk culminated in one of the most pleasant associations in business possible for two men to enjoy. Someone has said that to know a man thoroughly, to see and appreciate his true nature, one must pass at least one season alone in the mountains or on the desert or in the Far North with him. The pleasure of an outing near Nature's heart with Dr. Bicknell as a companion, has, I regret to say, never been mine, but, for sixteen pleasant years we were together in business, in the same or adjoining offices, day in and day out.

In all this time—and Dr. Bicknell will affirm what I am about to say—there was never a word of a disagreement between us, never a subject arose on which, by mutual discussion, we did not come to an amicable understanding immediately.

I soon learned that I had as a business associate, a man who was a perfect personal companion as well. He proved to be a man of extraordinary

Where a Daily Catheterism

is necessary, one thing is essential, viz: that the instrument employed, and the mode of using it, should be those which effect the object with the minimum of trouble and irritation.

—SIR HENRY THOMPSON, *Diseases of the Urinary Organs* (1879), p. 191.

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reduces to a minimum the trouble and irritation commonly attending a daily catheterism (1) by smoothing the passage of the catheter and (2) by its emollient and soothing action within the urethra.

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judgment, and I often found it wisest to defer to the courses of action he outlined. After these sixteen years, looking back at them softened as the years go by, I think I may say that I know Dr. Bicknell as well as any other living man, possibly far better than any other man. With the poet I can truthfully say, "To know him was to love him."

And his close friends were not all who loved him; to his patients Dr. Bicknell was ever more than a physician, he was a comforter and friend. A man of skill both in medicine and in surgery, he was great in all the deeds which add to the sum of human happiness the while he ministered to the physical needs of those who came under his hand. Last and best and dearest of all, was his sympathy for the sick to whom he administered services

which might well be termed deeds of love.

Yet there were other sides to Dr. Bicknell's nature in those earlier days; there are other sides to it now. He is a wit of no mean repute, though you may not think it, never having seen or heard him exercising the winged steed of his fancy. Like bubbles of clear, pure water, rising through the crystal flood of some mountain spring, Dr. Bicknell's wit has a seriousness about it which has to be heard to be appreciated.

Not the least of his claims to fame lies in his prowess as an after-dinner speaker. Far outside the bounds of Los Angeles, aye, even beyond the confines of Los Angeles county, he has been heralded as one of the greatest toasters since Joseph Choate laid down the crown. "We have with us this evening," from the lips of the toastmaster, is the familiar call to arms to which Dr. Bicknell rallies as the hart to the limpid stream. To hear him once is never to forget him; to hear him twice—well, most of us have heard him twice, and that is the answer.

But, seriously, and I never was more serious in my life than in the words I have spoken here tonight, Dr. Bicknell, through all the years in which I have had the pleasure of knowing him, has been the kindest, most merciful man I have ever met, in medicine or out of it.

Like a little girl acquaintance of mine, who said to her mother one day:

"Mamma, can God do everything?"

"Why, certainly, child. Why do you ask?"

"Can He make a rock so big He can't lift it?"

So Dr. Bicknell has always been trying to find some load he could lift off the shoulders of some one of his patients or of his friends, often merely of a casual acquaintance who seemed worthy of the help. Always his skill

and his knowledge have been at the disposal of those in distress, and by these deeds of kindness he has enshrined himself in the hearts of thousands whose names, even, we can never know.

As a body of representative medical men of Los Angeles, which is to say, of Southern California, we cannot but regret to see Dr. Bicknell leaving his place at the head of the directors of the California Hospital. More than our regret, however, is our rejoicing that the man who has become endeared in greater or less degree to all of us, is not leaving the city, but will be, for many years I trust, one of the leaders of the medical fraternity of Los Angeles, a credit to his profession, and an ornament to his fellow-physicians as he is an ornament of this board tonight.

But one word more. There is only one qualification in the long list of those attributable to Dr. Bicknell which I feel that I have overlooked. While I was chatting one day with a patient of my friend, Dr. Bicknell, a bride of a few months rushed up to us.

"Do you know," she said, "Charley and I have just been to Mt. Lowe for a whole two weeks?"

"How charming," was the reply of the patient. "I suppose you and Charley spent the entire time billing and cooing beneath the trees."

"Yes, we did the cooing, alright," said the bride, "but the landlord did the rest."

"Since when has Dr. Bicknell taken over Alpine Tavern?" queried the patient, in dead earnest.

* * *

DR. JOHN C. FERBERT IN HIS RESPONSE
TO DR. BICKNELL AND THE YOUNG

DOCTOR SAID:

Mr. Toastmaster, Dr. Bicknell and Gentlemen:

Ever since I was informed of the subject of the sentiment allotted to me, "Dr. Bicknell and Young Men in Medi-

cine," my mind has reverted at intervals to young men in and out of medicine. This is essentially an age of young men in all branches of endeavor and particularly in those of science and commerce. For concrete examples one does not have to go far afield. There, at the apex of Mount Wilson, a young man barely forty, for his wonderful research work in the solar system and for his remarkable inventive genius has been acknowledged by the finest scientific minds in this country and in Europe as ranking all savants engaged in the study of astro-physics. His discoveries within a year are said to have revolutionized long-established theories concerning the sun and are the foremost topics of discussion today in countless scientific circles.

Last Wednesday our local Chamber of Commerce selected as its president for the ensuing year a young banker not much past thirty. Our junior United States Senator from California is only a year or two in his forties; the president of one of our most prosperous national banks in this city is hardly more than forty, and of the keenest intellects among the members of the Los Angeles Bar, of the latter, several I could name are still in their thirties. This is an age of young men.

In our profession the young man is ubiquitous. On the directorate of the California Hospital Company are several young doctors whose presence among the gray heads seems almost an impertinence, yet their counsel is not disregarded, thus proving they are not wholly decorative. Naturally, this opportunity to be seen and heard has had a tendency to make the young man a bit chesty, particularly the young Doctor. He is inclined to feel his oats, in spots, and to regard his elders in medicine as—well, as somewhat old fogyish in their methods and out of date, and he can pretty well get along without them. But there comes a time in

the gray dawn of morning when the pulse of a patient is weak and thready, when the respiration is shallow and labored, the temperature sub-normal and the body bathed in a cold, clammy perspiration; when friends and relatives are standing around looking anxiously at the young doctor and imploring him what shall be done, when he wishes he were anything but a young doctor. For, alas, he is "all in" himself; there is nothing more he can do, but in a voice that strives to be normal he replies, "Let's send for the 'old doctor.'" And the old doctor responds promptly. He says a cheering word to the despairing relatives, approves the treatment of his young colleague, makes a suggestion that is eagerly followed by the latter, and by sharing the responsibility in this way lightens the load of the young doctor appreciably. This is the time when the old doctor seems like one inspired to the junior practitioner who is almost ready to fall on his neck and weep tears of joy for his presence.

I mind the time when, as a medical student, I was intrusted with numerous cases which I never would have been able to handle but for the good advice and ready thought of my guide, counselor and friend sitting on the right hand of our worthy Toastmaster. Dear old "Dad" Bicknell! How well I recall one case in particular when I had not the ability to operate and he stepped in, did all the work for me and then refused point blank to take the fee! And that fee, I remember, was \$250! It was a small fortune to me at that time and I shall never cease to be grateful to the "old" doctor who made it possible for me to add to my slender band account.

Nor am I the only medical student, by any means, who has had cause to be grateful to this same guest of honor for untold kindnesses when he was struggling for a medical education and for a chance for himself. There are those around this board, many of them, who

have experienced the gentle counsel, the timely help, the cheering word, the sage advice in a crisis and have been stronger men and better doctors for it.

In all the fifteen years I have been associated with Dr. Bicknell, although I know I must have tried his patience on occasions almost beyond endurance, never once has he uttered a harsh or unkind word to me. I have consulted and advised with him from time to time and the good advice I received I have, with the egotism of youth, been known to reject, and then, when I came to grief through thinking I knew a better way, in all penitence and humility I have gone back to him for help. And I always got it. Nor was it given grudgingly or with a gratuitous reminder of my headstrong conduct—not a bit of it! Not a suggestion of "I told you so!" or "next time, perhaps, you'll take my advice" That is not Dr. Bicknell's way, gentlemen, as you all know. There is not an ounce of pride, an atom of egotism, an iota of self-laudation in his make up. On the contrary, simplicity in language, gentleness in tone, self depreciation—almost too much so—are his marked characteristics. He has never hesitated to say a good word for the young doctor, never thought it too much trouble to go out of his way to give him a good send off.

I have said that I never knew him to be envious. I want to amend this. I have known at times of ungrateful patients he has treated whose injustice has moved him once or twice to express regret that he had not the physique of a Jim Jefferies so that he could administer a sound pummeling to them for their impertinences and then cheerfully tear up their bills ready to cry quits.

Gentlemen, I will ask you to drink a toast with me to dear old "Dad" Bicknell; and the best wish I can make for the young man entering medicine is that he may have him, or just such another, for his preceptor.

CAPT. JOHN D. FREDERICKS, ESQ.
RESPONDED AS FOLLOWS TO THE SENTI-
MENT: DR. BICKNELL AS A SOLDIER
AND A CITIZEN.

"Dr. Bicknell as a Soldier and a Citizen in Five Minutes" is like Dr. Harry Brook's cure for all diseases in five volumes. Either the volumes must be too big to be handled, or too short to be useful.

Such incidents as these tonight generally occur post mortem.

It might be the part of wisdom as well as courtesy to wait until the physician had sent for the undertaker to tell of the evil which, as Mark Anthony says, "lives after them;" but, as the good is oft interred with their bones let's tell it now.

When Dr. Bicknell entered the union army in our great war he was a boy so he should not be too severely censured for the act.

They were nearly all boys in those terrible days; boys with hearts and souls of men; boys made into men while you wait—but the nation could not wait so these boys grew to men while they fought.

I have heard a soldier say one battle makes a boy into a man. Eighteen times then was manhood added to the stature of this boy—eighteen bloody battles—eighteen battles and a hundred times in each the scrawny finger of death pointed his company over—"tinker, tailor, soldier, sailor, rich man, poor man, beggar man, thief—one, two, three, out goes he!"

Once, at the battle of Carrion Crow, seven hundred men of his, the Twenty-third Wisconsin, marched into battle and but seventy ever came back. It must have been the name of this battle which has discouraged poets from linking it with Balaklava.

He celebrated that great Fourth of July with Grant when Vicksburg fell; fell only after the last mule had been eaten and the last piece of wall paper

used to print the order of surrender.

God Almighty grew a tree on the battle field at Fort Hamlin—he grew it with a crooked, upturned root, which caught the toe of this soldier boy in a furious charge, threw him to the ground, and when he arose every man in his company was smitten with a deadly fire at close range. Spared that he might fight and win other battles, battles the world never knew, battles by the score to stay the grim hand of death with quiet skill and patient vigilance. Battles as a citizen with the knowledge that since the day when the walls of Jericho fell at the blast of the Ram's Horn, that fortified evil has not been conquered that way, that the good and substantial in civil life has been attained and retained only by patient, plodding, determined men who never advertised their wares, but never failed to do the duty which came under their hands at each step of the way.

He radiates good as the sun does light.

Then here's to the man who does, rather than the man who talks; here's to the man who really loves his fellow-man, and does his duty, because of his love, as well in the dark as in the lime-light.

May he long be spared to enjoy the wealth of honor he has earned by a life of sterling virtue, and at the end go unafraid.—Here's to Dr. Bicknell.

* * *

RESPONSE OF FREDERICK T. BICKNELL, M.D.,
THE GUEST OF HONOR.

Mr. Toastmaster, Gentlemen, Doctors, and most of all, my very Dear Friends.

I am sure you will not be surprised if I fail to find words at command to enable me to, more than in a very limited degree, express my appreciation of the great compliment and high honor you pay me by making me your invited guest this evening.

The relation that I sustain to this occasion is so personal, being the recipient of all the unqualified compliments and eulogies pronounced by my friends, is it a wonder that I am overwhelmed with embarrassment and timidity?

Never before have I been so oppressed by the consciousness of my deficiency and absolute inefficiency to meet the requirements of the occasion.

I have no words to tell you the joy it would bring to my heart could I fittingly respond to all the kind things my friends have said to me tonight. Over-zealous friends on public occasions allow themselves a range of eulogistic license that often amounts to romancing, and tonight is certainly no exception. But I forgive them even though they care not what they say.

Your love and kind words, your lasting and substantial friendship, make up a memory more lasting and enjoyable than any other tribute you could possibly bestow upon me.

As I look around this table I see many of the "Old Guard" who, for more than a quarter of a century have been my associates, colleagues, competitors, and, best of all, loyal friends—not less *then* than now—and through them more than through any merit of my own I have enjoyed professional preferment and honors that should have been theirs and not mine. No better men are living, or dead, so far as that is concerned, than these old veterans that have grown gray in the medical profession fighting disease and death. As we have gone over the summit together and are now on the down-grade, but still in hallooing distance, I desire to say to you I want to keep within speaking distance through all eternity, for I believe that wherever you are will be a heaven good enough for me or anybody.

I see here also a large representation of younger men who do me the great

honor, by assuring me through their voluntary presence that I may count them as my personal friends. I take advantage of this opportunity to say to them that I vouch for every one of the "Old Guard" in their "God Speed" to your present and future success. This day and age give you vastly superior educational advantages over *our* school days; but allow me to remind you that while books and laboratories are foundation stones, the symmetry and permanency of your professional superstructure will depend almost wholly upon the caution and perfection with which you mix your college education with your sick-room and bed-side experience. Be close observers and good listeners and you will grow wise to many good things from unpretentious sources that the deans of many colleges never knew.

Yes, my gracious hosts, your vast numbers, your extravagant and sumptuous repast, your overwhelming welcome in words and cheer, make me inexpressibly happy and proud to be one of your number, and *especially* your guest.

It is without a shadow of conceit that I feel at liberty to challenge any profession or organization, legal, theological, or educational, to produce an equal number of men that can compare in scientific attainments, general up-to-date knowledge of art, literature and the world's doings, with those found in the regular medical profession the world over, and not last or least, in this city, and at this banquet board tonight. As your guest all that I could desire, and much more than I deserve or had a right to expect, you have conferred upon me.

I will not detain you longer except to say that you have given me a *possession* in memory so pleasant and so precious that so long as I live will always cheer me; and no one can take it away from me, for you gave it to me

freely, and it is mine to keep and enjoy always.

Gentlemen, you have failed me in only one thing. I am not provided with a tankard large enough, or full enough, to half express my lasting and sincere love for you all; but with such as we have, please join me in the toast—To my hosts long life, prosperity, and may your friends be as good and true to you as you always have been to me, for such makes up the Brotherhood of Man.

Good night.

* * *

The following letter was read from Dr. Barlow:

HOTEL ST. FRANCIS, SAN FRANCISCO,

January 15, 1909.

To the Committee of Arrangements of the Bicknell Dinner.

GENTLEMEN: With my close attention here to an important professional matter of interest to us all, I have not been unmindful of what we owe to one of our finest men in Los Angeles, and that we shall soon demonstrate to him our warm regard and esteem. During my life in Los Angeles, Dr. Bicknell has always held the highest place—as a physician, citizen, and man among men. It is the greatest pleasure to join those who honor him, to be counted among his friends, and those who love him. Since I cannot arrive at Los Angeles till Sunday, please express that my absence tomorrow evening is my one regret. Sincerely yours,

W. JARVIS BARLOW.

* * *

FINE TRIBUTE TO DR. BICKNELL.

Instead of waiting for Dr. F. T. Bicknell to pass away before expressing their high opinion of him as a friend and a physician, his colleagues associated with him in the California Hospital Company, at a delightful dinner at the California Club last Saturday night told this nestor of the medical

profession what place he holds in their affectionate regard. After ten years of service as president of the California Hospital Company, Dr. Bicknell retires in favor of Dr. Everett R. Smith, who presided at the dinner. Dr. Walter Lindley was toastmaster, and in a most felicitous manner he introduced the various speakers. To enliven the proceedings Dr. Lindley placed at a round table in the center of the room a group of young doctors who did not fail to carry out instructions. That Dr. Rea Smith, Dr. Clarence Moore and Dr. Guy Cochran were under the surveillance of their respective fathers seemed to discourage their sallies in no particular. They were aided and abetted in their playful proclivities by Dr. Ed Cook, Hugh Stewart and Phil Kitchin, to the edification of all present.

I have seen Dr. Lindley preside at the University Club in times past with rare presence of mind, on occasions, and never supposed he could be caught at a loss for words. But for once he was nonplused at the Bicknell dinner. It was when, after a neat introductory speech in which he had apostrophized the guest of honor, the laymen present, the old doctor and the young ones, there was a slight pause, and came from the center table in sepulchral tones the responsive "How do you do!" It emanated from the waggish Dr. Guy Cochran and literally convulsed the house. Dr. Lindley halted perceptibly, actually blushed, but presently recovered and continued. And how Dr. Guy's father chuckled over the episode. "The young rascal," he murmured, "I shall have to discipline him for that."

Many excellent speeches were made, in which Drs. W. W. Beckett, George L. Cole, Henry G. Brainerd, William A. Edwards, W. W. Hitchcock, M. L. Moore (the latter a true descendant of the Irish poet), Andrew S. Lobingier, John C. Ferbert and Granville MacGowan distinguished themselves.

Besides these, Captain J. D. Fredericks responded to the toast, "Dr. Bicknell as a Soldier," and the way he handled the subject proved conclusively how effective a speech he will be able to make when he is inducted into the gubernatorial chair. John McGroarty read an original poem as graceful for its composition as it was felicitous in its sentiment. At the close of Dr. MacGowan's witty address he disclosed a magnificent timepiece which was presented to Dr. Bicknell with the love and regard of his associates. The honored guest responded in a beautiful little talk full of feeling that made more than one present cough suspiciously. Then all stood up and sang "Auld Lang Syne," ending a most auspicious occasion.—*The Graphic*.

PRESIDENT CALLS CONFERENCE ABOUT CHILDREN.

The President of the United States has again put himself upon record as a friend of the children of the land. He has issued invitations to representative men to attend a conference to be held at the White House January 25 and 26, in the interest of dependent children. Dr. Walter Lindley, of Los Angeles, chairman of the Committee on Public Health of the National Conference of Charities and Correction, received a letter yesterday signed by President Roosevelt, bidding him to this conference, but he will be unable to go.

"Surely nothing ought to interest our people more than the care of the children who are destitute and neglected, but not delinquent," declares the President in this communication. "Personally, I very earnestly believe that the best way in which to care for dependent children is in the family home. In Massachusetts many orphan asylums have been discontinued and thousands of children who formerly have gone to orphan asylums are now kept in private homes, either on board, with payment

from public or private treasuries, or in adopted homes provided by the charity of foster parents. Many religious bodies have within the past few years organized effective child-placing agencies."

This conference has been called at the request of nine leading workers for children in the United States including: Homer Folks, secretary of the New York State Charities Aid Association; Dr. Hastings H. Hart, superintendent of the Illinois Children's Home and Aid Society; John M. Glenn, secretary and director of the Russell Sage Foundation; Hon. Thomas M. Mulry, president of the St. Vincent de Paul Society of the United States; Dr. Edward T. Devine, editor of the *Charities and Commons*; Hon. Julian W. Mack, judge of the Circuit Court of Chicago; Charles W. Birtwell, superintendent of the Boston Children's Aid Society; Theodore Dreiser, editor of *Delinquent*, and James W. West, secretary of the National Child Rescue League.

GRAVE QUESTIONS.

These men have presented to the President one of the grave questions of the country, one that has been felt in Los Angeles by every society having to do with children. The communication which these child workers sent to the President, and which urged him to action, says:

"The problem of the dependent child is acute; it is large; it is national. We believe that it is worthy of national consideration. We earnestly hope that you will co-operate in an effort to get this problem before the American people.

"The State has dealt generously with her troublesome children, but what is she doing for those who make no trouble, but are simply unfortunate? There are a large number of these children for whom there is need of special activity and interest. Some are orphans or half-orphans, some are aban-

doned by heartless parents; some are victims of cruelty or neglect."

WORK PROPOSED.

The Mothers' Congress will rejoice in the thought of this conference, for several of its dearly-cherished desires for the children of the country will be brought up for consideration.

The first subject slated for discussion was first suggested and urged by a prominent Pasadena woman, Mrs. Elizabeth Boynton Harbert. This is, "Should there be established in one of the Federal departments a national children's bureau, one whose object shall be the collection and dissemination of accurate information in regard to child-caring work and in regard to the needs of the children throughout the United States?"

There are nine questions to be brought before the members of the conference. They are as follows:

No. 2. "Should the State inspect the work of all child-caring agencies, including both institutions and home-finding societies?"

No. 3. "Should the approval of the State Board of Charities (or other body exercising similar powers) be necessary to the incorporation of all child-caring agencies, and to the amendment of the charter of an existing benevolent corporation, if it is to include child-caring work; and should the care of children by other than incorporated agencies be forbidden?"

No. 4. "Should children of parents of worthy character, but suffering from temporary misfortune, and the children of widows of worthy character and reasonable efficiency, be kept with their parents—aid being given to the parents to enable them to maintain suitable homes for the rearing of the children? Should the breaking up of the home be permitted for reasons of poverty or only for the reasons of inefficiency or immorality?"

TOGETHER OR SEPARATE?

No. 5. "Should children normal in mind and body, and not requiring special training, who must be removed from their own homes, be cared for in families, wherever practicable, rather than in institutions?"

No. 6. "So far as an institution may be necessary, should they be conducted on the cottage plan; and should the cottage unit exceed twenty-five children?"

No. 7. "Should the State educational authorities exercise supervision over the educational work of orphan asylums, and kindred institutions?"

No. 8. "Should child-caring agencies aim to co-operate with each other, and with other agencies, for social betterment for the purpose of diminishing or removing altogether the causes of orphanage; of child destitution, and child delinquency?"

No. 9. "Would it be helpful and desirable if some permanent committee or organization, comparable to the National Child Labor Committee, could be established for the purpose of carrying on an active propaganda with the view of securing better laws in relation to children, better organizations of child-caring agencies, better methods of relief and aid to any children throughout the United States."

The importance of these questions will find an echo in the heart of every worker in the cause of childhood from California to Pennsylvania, and from Canada to the Gulf.—*The Los Angeles Daily Times*.

Drs. Leonard, Stookey and Jones announce the beginning of their regular "quiz" classes preparatory to the April meeting of the State Board of Medical Examiners.

The first meeting will be held Friday, February 12, at 4 p.m., in the Leonard-Stookey Pathological Laboratory, 631 Auditorium Building, Fifth and Olive Sts., Los Angeles.

STATE LICENSING BOARDS.

The opinion seems to be gaining ground that the State examining and licensing boards are not, on the whole, doing the work expected of them in a manner altogether satisfactory to the profession. Of late there have appeared several notable publications on the subject. Among them is a paper by Dr. Willis G. Tucker, professor of chemistry in the Albany Medical College, entitled "On State Licensing Examinations and State Control in Medicine." It appeared in the December issue of the *Bulletin of the American Academy of Medicine*. In that paper it is not for the first time that Dr. Tucker criticises the examinations as they are conducted by some of the boards, and we have before had occasion to commend his criticisms. The burden of them is that certain questions on the examination papers are unfair and of no value whatever in ascertaining a candidate's real qualifications as a practitioner of medicine, their sole result being to test the fleeting memory of a crammer.

In his customary temperate manner, Dr. Tucker points to some examples of questions which he regards as objectionable, and from his pertinent comments we may cite the following: "A person may be a very competent practitioner of medicine and yet unable to say very much about 'valence' or the 'four functions of a symbol' (So. Dak. exam., Jan., 1908), though a pupil fresh from a high school course might find no difficulty in answering such questions." "Such questions as 'What is the rarest element, the heaviest metal?' etc., should not be given. Probably no one knows, and if any one does it is of little interest or importance." "Questions involving methods of manufacture of chemical and medicinal compounds are seldom justifiable. For example, 'How is tartar emetic made?' (Michigan, June, 1908). It never is made either by the physician or pharmacist, and no process

of manufacture is given in the U. S. Pharmacopœia."

Much more radical is a ponderous pamphlet (of 200 pages) by Dr. P. C. Remondino, ex-president of the State Medical Society of California, professor of history of medicine and of medical bibliography in the College of Physicians and Surgeons of Los Angeles, etc., entitled *Some Random Thoughts and Reflections on the Methods and Uses of State Boards of Medical Examiners*, etc. From the literary point of view this production is peculiar, but it contains some very effective remarks. Dr. Remondino would do away with the whole system, as we understand him, and he virtually charges a particular State board with exercising favoritism in some cases and seeking to gratify malice in others. He blames the Association of American Medical Colleges in great measure for the objectionable features of the work of State examining boards.

It is in California that the battle seems to be raging fiercest. Another physician of that State, Dr. F. C. E. Mattison, of Pasadena, a member of the California State Board of Medical Examiners, attempts to tell why it is that so many applicants fail to pass that board's examinations. His article appears in the December number of the *SOUTHERN CALIFORNIA PRACTITIONER*. It is largely illustrated by citations of certain applicants' more or less stupid answers to printed questions. One of them does not seem to us so very foolish. The candidate was required to describe the movements of the intestines, and his answer was: "The movement is a peristaltic action. A moving up and and down—look is if they were crawling over each other." We should not mark a man very low for such an answer. It is to be hoped that the whole controversy will result in some decided improvements in the methods of State boards.—*Editorial N. Y. Medical Journal*, Jan. 9, 1909.

BOOK REVIEWS

A TEXT BOOK OF GENERAL BACTERIOLOGY. By Edwin O. Jordan, Ph.D., University of Chicago. Published by W. B. Saunders Company, Philadelphia.

In this new text book Dr. Jordan gives the results of his work as a teacher in bacteriology. The book is "an outgrowth of a series of lectures to the students of the University of Chicago." Dr. Jordan devotes a few introductory chapters to general classifications, methods of study and the relation of bacteria to disease. The chapter which deals with immunity is of especial interest, and contains a careful review of the principle theories of immunity, together with their practical laboratory applications.

The main part of the book deals with pathogenic bacteria, which are discussed in the usual manner. Many new and interesting subjects, however, are introduced in the chapters on trichomycetes, blastomycetes, the pathogenic protozoa, milk and milk products, bacteria and the nitrogen cycle, bacteria in the arts and industries and the bacterial diseases of plants. The addition of these chapters to a text book of bacteriology is a new departure, and adds greatly to the practical value of the book.

Dr. Jordan's book contains about 500 pages, and the subject is presented in an interesting manner. Altogether this new bacteriology should be considered among the very best of our recent text books in this subject, both for lecture work and laboratory technique.

E. L. L.

ANNUAL REPORT OF THE SMITHSONIAN INSTITUTION for the year ending June 30, 1907. Washington, Government Printing Office, 1908.

This volume of 726 pages contains much that is valuable. There is an excellent article on the Salton Sea, another on the Geology of the Inner Earth, the Problem of Color Vision, and twenty-six other scientific articles,

each by an eminent authority and all well illustrated. Any physician who would like to receive this annual publication should write to the Congressman from his district.

A MANUAL OF DISEASES OF THE NOSE AND THROAT. By Cornelius Godfrey Coakley, A.M., M.D., Professor of Laryngology in the University and Bellevue Hospital Medical College, New York City; laryngologist to Columbus Hospital, the University and Bellevue Hospital Medical Clinic; Consulting laryngologist to the New York Board of Health; Member of the New York Academy of Medicine, Society of the Alumni of Bellevue Hospital, Medical Society of the County of New York, Medical Society of the State of New York, American Laryngological, Otological and Rhinological Society, etc. Fourth edition, revised and enlarged. Illustrated with 126 engravings and 7 colored plates. LEE & FEBIGER, New York and Philadelphia, 1908.

Perhaps there has been no manual of this size which has received as universal approbation as this work of Dr. Coakley's, and deservedly so. In this new edition, each article has been revised and the work has been brought up to date in every particular. In dealing with treatment and operations we think that the author has made a wise move in selecting only those which, in his judgment, are the best, and giving them with full detail. The colored plates, especially those on transillumination, are particularly fine.

AN ALABAMA STUDENT AND OTHER BIOGRAPHICAL ESSAYS. By William Osler, M.D., F. R. S., Regius Professor of Medicine, Oxford; Honorary Professor of Medicine, Johns Hopkins University, Baltimore. Cloth, 334 pages. Oxford University Press, 29 West 32nd Street, New York, 1908.

In his most charming style, Osler has here presented the biographical essays of some thirteen disciples of Hippocrates, more than half of whom were Americans. Osler states that in addition to his own natural interest in this subject he had always had a strong conviction of the value of biography in education, and that he had always felt it to be highly beneficial to students to take as

their models the great men of the profession in their own country.

The "Alabama Student" turns out to be a Dr. John Y. Basset of Huntsville, Alabama, whose career Osler discovered in looking up the literature of Malarial Fever in Fenner's Southern Medical Reports, 1849-51. The sketch presented of Basset is most charming and at the same time inspiring.

Other sketches are those of Thomas Dover, physician and buccaneer; John Keats, the apothecary poet; Oliver Wendell Holmes; John Locke, as a physician; Elisha Bartlett, a Rhode Island philosopher; Surgeon Beaumont, a backwoods physiologist; The Influence of Louis on American Medicine; William Pepper; Alfred Stille; Sir Thomas Browne; Fracastorius; Harvey and His Discovery.

The book is "dedicated to William Henry Welch, Professor of Pathology, Johns Hopkins University, whose unselfish devotion to science illustrates the spirit that in every age has made medicine of service to humanity."

PRINCIPLES AND PRACTICE OF PHYSICAL DIAGNOSIS. By John C. Da Costa, Jr., M.D., Associate in Clinical Medicine, Jefferson Medical College, Philadelphia. Octavo of 518 pages, 212 Illustrations. Philadelphia and London, W. B. Saunders Company, 1908. Cloth, \$2.50 net. W. B. Saunders Company, Philadelphia.

Da Costa has produced in this book one of the best volumes on physical diagnosis which has come into our hands. He divides his subject into a discussion of methods and technic of physical examination; examination of the thorax; examination of the broncho-pulmonary system; diseases of the broncho-pulmonary system and mediastinum; examination of the cardiovascular system; diseases of the cardiovascular system; and examination of the abdomen and the abdominal viscera.

Especial consideration is given to clinical anatomy and the origin, mechanism

and meaning of normal physical signs, not neglecting also the subjects of pathology and diagnosis. Laboratory technic is gone into sufficient to subserve ordinary needs.

The illustrations are excellent, the text is clearly and logically written and the type, paper and binding of a kind to give a fitting presentation of a valuable book.

SPECTACLES AND EYE GLASSES, THEIR FORMS, MOUNTING AND PROPER ADJUSTMENT. By R. J. Phillips, M.D., Ophthalmologist, Presbyterian Hospital; Late Adjunct Professor, Diseases of the Eye, Philadelphia Polyclinic and College. The Principles in Medicine, etc. Fourth Edition, Revised, with 56 Illustrations. Cloth, 96 pages. Philadelphia P. H. Davis's Son & Co., 1012 Walnut Street, 1908. Price \$1.00.

This is not so much a book on the principles of refraction, as it is a little volume on the art of so placing the glasses before the eyes as to make the refraction measurements of greatest value. Full consideration is given to the art of making the glasses efficient, comfortable and as handsome as possible, particularly in the fitting of prismatic and cylindrical lenses. Those who are interested in this subject will find this little book of real value.

PRACTICAL POINTS IN ANESTHESIA. By Frederick Emil Noe, B.S., B.L., M.D., M.D., New York City. Cloth, 46 pages. Surg. Publishing Company, 92 William Street, New York, 1908.

"Anesthesia is a science which deserves more attention," so says the author, in which statement the reviewer heartily concurs. The administration of anaesthetics is an art. To be sure there are rules of procedure and general signs for the guidance of the administrator, but the safe, easy anesthetization can be induced only by using the proper drug for the individual case given by an experienced, *attentive* specialist. The reviewer once wrote this sentence: "And this is the sum of the laws of the anesthetist: when that thou givest an anesthesia, give it as thou wouldst have it

given unto thee, that the days of thy patient may be long in the land that the Lord his God hath given him."

The prior administration of one quarter of a grain of morphia an half hour before narcosis is usually good, but it should not be the routine, as some persons have a bad idiosyncrasy against this drug. I believe also that atropine 1-150 should *always* be used in conjunction with this drug. The author does not mention this combination, but the

atropine is the greatest preventive against the most fatal effects of chloroform and the most bothersome symptom of ether—namely collapse and excessive—that we have in medicine.

His philippic against crowding the vapors, his remarks against injury of the cornea in unnecessary and rough handling, his advice as to the depth of anesthesia and his warning against overdose in rectal and gall bladder operations are points well taken. B.

CALIFORNIA HOSPITAL ALUMNAE NOTES

The California Hospital Nurses' Alumnae Association held the first meeting of the year at the Directory rooms, 1103 West Eighth street.

At the December meeting the election of officers was as follows: Miss Johnson, president; Mrs. Durbin, first vice-president; Miss Cochran, second vice-president; Miss Gilbert, secretary, and Miss Barbor, treasurer.

The reports from the various standing committees were read and approved.

Mrs. E. P. Durbin was asked to act as editor of our paper, *The Record Sheet*, for another year.

Standing committees for 1909 were appointed by the president, Miss Johnson, with the following members as chairmen: Membership Committee, Miss Westover; Programme Committee, Miss Gage; Committee for Visiting Sick Nurses, Miss Newkirk; News Committee, Miss Simpson.

Several very interesting communications were read including Season's Greetings and best wishes for the success of the Alumnae Association during 1909.

A very beautiful calendar, designed by Dr. Walter Lindley, was presented

by the physicians and nurses of the California Hospital to each member of the association.

At the adjournment of the meeting Mrs. Middleton's hospitality was enjoyed while the members enthusiastically discussed plans for the coming year.

It was decided that after each meeting, some nurse shall read extracts from some interesting article pertaining to nursing or otherwise, the same to be discussed.

Dr. Lee's book on "Obstetrics" was donated to our circulating library, and Dr. Lindley's gift for the year is as follows: Magazines: *The American Journal of Nursing*, *Canadian Nurse*, *The Trained Nurse*, and *The Southern California Practitioner*.

Miss Kent has accepted a position in Hermosillo, Mexico.

We are glad to learn that Mrs. Cutler has returned to Los Angeles and is recovering nicely from her recent seige of typhoid fever.

Miss Hennegham has gone to Oxnard to assist in Dr. Livingston's hospital.

Mrs. Harshaw Wilson began the New Year as night superintendent of the Clara Barton Hospital.

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and Sharpens the Appetite.*

*Stimulates the Digestive Glands,
Promotes Secretory Activity and
Tones the Gastro-intestinal Tract.*

*Indications: Impaired Appetite,
Gastro-intestinal Torpidity—and
All Digestive Disorders in which
the Secretory Activity of the Di-
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**When Anaemia Complicates
Colden's Liquid Beef Tonic with Iron
is Indicated**

Sold by Druggists

THE CHARLES N. CRITTENTON CO., 115 Fulton Street, New York

Sample with literature sent *gratis* to any physician on request.

Miss Evelyn Caywood (class '04) has been spending several months in San Diego.

Miss Caroline Jantzen (California Hospital) has accepted a position as chief surgical nurse in the Alta Bates Hospital in Berkeley, California.

Mr. Victor Watkins and his wife, nee Miss Alma Green, spent their Christmas at the home of the bride's brother in San Diego.

Dr. and Mrs. Arthur Godin, nee Blanche Kimball, spent Christmas at San Bernardino with Mrs. Godin's parents.

We would like to remind the pupil nurses of our Training School that the State Convention of Nurses will be held Coronado Island in June of this year. There are always summer rates to San

Diego and it would be well to plan to take our vacation there, and attend the meetings.

A delightful play was given at the Nurses' Home by the nurses of the Training School. After the play a Christmas tree was enjoyed and dainty refreshments followed.

Miss Josephine Archer, P. G. California Hospital, has accepted the position of superintendent of the San Bernardino County Hospital.

Miss Bertha Peterson, class '07, has taken up institutional work at Sacramento, California.

PURPURA.

Diedrich finds simple purpura not uncommon in malaria. The hemorrhagic variety is quite rare.

THERAPEUTICAL HINTS

It is a well established chemical fact that hepatic insufficiency begets hepatic torpor, and that a lazy liver results in biliary stasis. Such a condition, in turn, implies a sluggish flow of viscid bile and the intestine is thus deprived of its normal quantity of antiseptic, antitoxic, fat emulsifying and physiologically laxative biliary fluid. The result is the putrefaction of proteids, the saccharo-butyric fermentation of carbohydrates, more or less fat indigestion, constipation, and finally, the constitutional absorption of the products of putrefaction and the development of an auto-toxemia of intestinal origin. This condition is responsible for the many manifestations of systemic poisoning, such as mental dullness, lassitude, periodic headaches and neuralgias, digestive vertigo, neurasthenia, melancholia, obscure neuroses, etc. It is now, also, well appreciated that many eye, nose, throat and skin disorders are primarily auto-toxic in origin. By virtue of its contained bile acid salt (sodium glycocholate) chologestin is a true hepatic stimulant and cholagogue. Its normal (non-irritant) sodium salicylate (from oil of wintergreen) exercises its liquefying action upon the biliary fluid and also acts as an intestinal antiseptic. Its contained pancreatin (U. S. P. Standard) assists intestinal digestion generally, and the sodium bicarbonate tends to overcome any undue acidity that may exist. It will be observed, therefore, that the active ingredients of chologestin are so combined as to be mutually helpful in the relief of the conditions above referred to.

It is well known among medical men that rest, simple rest in bed will cure a great many cases of influenza. Symptomatic treatment, however, gives the best results. The pain should be relieved by

an anodyne. Quinine should be administered all through the attack, as it has a stimulating effect and antipretic action and seems to destroy the bacillus. When the pain is severe, two antikamnia tablets every two or three hours will give much relief. To relieve the cough when it is accompanied with a great deal of pain, one antikamnia and codeine tablet every two or three hours dissolved on the tongue, acts very promptly and successfully. That codeine had an especially beneficial effect in cases of cough, and that it was capable of controlling excessive coughing in various lung affections, was noted before its true physiological action was understood. Later it was clear that its power as a calmative was due, as Bartholow says, to its special action on the pneumogastric nerve. Codeine stands apart from the rest of its group, in that it does not arrest secretion in the respiratory and intestinal tracts. In marked contrast is it in this respect to morphine. Morphine dries the mucus membrane of the respiratory tract to such a degree that the condition is often made worse by its use; while its effect on the intestinal tract is to produce constipation. There are none of these disagreeable effects attending the use of antikamnia and codeine tablets.

Paul Caldwell says: Probably no preparation of the Pharmacopoeia has received as much attention from pharmacists as the cataplasm of kaolin. As yet there seems to be no one who has been able to so manipulate the official formula for it as to produce a satisfactory product. I have before me extracts from papers on it, written by six different men eminent in pharmacy, and no two of them agree on a plan of procedure, and only one is of the opinion that the Pharmacopoeia is right.—*Abstracted from the Druggists' Circular.*

PNEUMONIA

IN PNEUMONIA the inspired air should be rich in oxygen and comparatively cool, while the surface of the body, especially the thorax, should be kept warm, lest, becoming chilled, the action of the phagocytes in their battle with the pneumococci be inhibited.

Antiphlogistine (Inflammation Antidote)

applied to the chest wall, front, sides and back, hot and thick, stimulates the action of the phagocytes and often turns the scale in favor of recovery.

It is an acknowledged fact, as declared by a well known medical teacher and author in his latest text-book on treatment, that "heat applied and persisted in over the entire diseased area is a most potent and physiological antagonist to those essential conditions which are directly induced by the causes of the disease, and from which all ultimate pathologic results must develop. It is profoundly stimulating, and while local heat from undue combustion is present, the applied heat stimulates the capillaries and physiologically unloads the venous capillaries. At the same time it stimulates the arterial capillaries through its influence upon the peripheries of the nerves and secondly upon the nerve centers, to drive the accumulating tide through the engorged vessels, thus unloading them into the veins. It thus carries off the accumulating waste, brings into the capillaries a new tissue supply and quickly remedies the harm that has been done them in the primary congestion.

"It is a most rational procedure. It is logical, it is reasonable, it is physiological and it is highly scientific. And such a course is always acceptable."

CROUP

Instead of depending on an emetic for quick action in croup, the physician will do well to apply Antiphlogistine hot and thick from ear to ear and down over the interclavicular space. The results of such treatment are usually prompt and gratifying.

Antiphlogistine hot and thick is also indicated in Bronchitis and Pleurisy

The Denver Chemical Mfg. Co., New York

It is a matter of small moment whether or not pharmacists can make this preparation, as it is at best but a poor imitation of antiphlogistine, for which it is recommended as a substitute. Up to date no one has successfully imitated a \$20 gold piece, and the same may be said of antiphlogistine. As long as the Denver Chemical Manufacturing Company maintains the high standard it has set for its product, there will be little necessary for the druggist to worry over methods of manufacturing cataplasm of kaolin.

Of recent additions to the Pharmaceutia few are making more rapid strides to popularity amongst physicians than Phenolphthalein. Its effective and speedy, yet gentle laxative properties, make it admirably suitable in disorders of the digestive and nervous systems, and its use in general practice is markedly increasing. On this coast the Pax Chemical Company of Oakland has issued to the medical profession two preparations based on Phenolphthalein in association with non-depressant analgesics and correctives. These two preparations are sold (in tablet form without distinctive marks) under the trade names of Pax Pellets and Phenalein, and attention is directed to the advertisement in this magazine where particulars of both will be found. These goods are carried by the Pharmacists of the Pacific Coast.

Papine in the new 16-ounce bottle—as offered from January 1, 1909, by Battle & Co., Chemical Corporation, St. Louis—shows a saving to the profession of \$2 per dozen, as against the price of two dozen of the 8-ounce size at \$8.50 per dozen, and in which latter there will be no change, either as to size or price. Battle & Co., St. Louis, Mo., have issued number eight of Dislocation Chart series. Physicians desiring any back numbers can get same upon request.

HOW TO TAKE CASTOR OIL.

There are many ways of taking castor oil with ease and facility—on paper. I have failed to see or taste one that, to my way of thinking, approximated “nice new honey fresh from the comb.” For children, peppermint oil or essence of cinnamon disguise the nasty taste about as well as anything. If the patient can take oil in whisky or beer it is to advantage. It seems that whisky quickens the cathartic action of the oil, although there might be good reasons for not encouraging a patient to thus employ these questionable beverages. Before taking a dose of oil, if it is to be taken straight and alone, the patient should hold ice or very cold water in his mouth for a minute, as the taste bulbs are momentarily put out of commission and much of the disagreeable effects thus obviated.

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SELWYN EMMETT GRAVES
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DR. H. BERT ELLIS, DR. GEO. L. COLE and DR. W. JARVIS BARLOW,
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SELWYN EMMETT GRAVES.*

A SKETCH OF HIS LIFE.

BY HIS FATHER, J. A. GRAVES.

One year ago today the subject of this sketch met his death in a most unfortunate accident.

It is fit and proper that a record of his short young life should be made for the benefit of those who come after him, who may be interested in his memory.

He was the third child of Alice H. and J. A. Graves, and was born at their residence on the northeast corner of Third and Broadway (then Fort street), in the city of Los Angeles, California, on the 10th day of January, 1885. We named him after two of his uncles, Henry Emmett Graves, who died in this city in the spring of 1906, and Selwyn Haun Graves, who died at Marysville, in this state, many years ago, at the age of thirteen years.

Being a strong, healthy child, he passed through all the ills of childhood with but two seriously sick spells.

When he was three years old, we removed to our present home in the San Gabriel Valley, which is now embraced in the city of Alhambra. He spent the remaining years of his life, less the time he was away at school, amid the most

ideal and delightful surroundings. In his early childhood days, there was just enough wildness to the location of our home to make it attractive to a child. Living in the open, among the trees and flowers, he imbibed a love for nature, for the mountains, running waters and our natural forests.

He never was a child of quick intellect, but possessed a good, clear mind which grasped a proposition, when properly presented to him, and tenaciously retained it. Slow in developing the powers of articulation, he did not speak plainly until he was five years old.

At the age of six years, he began his school life at the public schools of Alhambra, and made fairly good progress. He was slow to learn, had to work hard to keep up his studies, but when he once learned a thing, he never forgot it.

Six years of his life were thus passed in the same boyish pursuits and pleasures that come to the ordinary boys of his age. He had a pony and cart which was a source of great delight to him. All of the young people in our neighbor-

*See editorial "A Change of Affiliation."

hood adored him. All of our help loved him. Four Chinamen, two of whom had been on the place many years, of their own motion got a livery rig and followed his remains to the grave and really felt his loss with genuine sorrow.

During the summer of 1897, he accompanied his mother, his sister Alice and myself to Lake Tahoe. The high Sierras, with their great wealth of running waters and forests of pine and fir, were a revelation to him, and every moment of the time spent at the Lake was to him a source of long-remembered joy. As we returned from this trip, he entered Professor Reid's School at Belmont, San Mateo County, in this state. The school is beautifully located and well conducted. He remained here six years and was well grounded in every branch that was embraced in his course of study. I feel satisfied that his Belmont work was of great assistance to him during his years at the Medical College later on.

While at Belmont, many friendships were formed by him with boys of his own age, which were close and permanent. During his stay there, he made a splendid collection of bird's eggs, which we still retain. He would have made a great naturalist. All of his tendencies were in that direction. Nature and all her wild creatures interested him. Chemistry was the one study that he always excelled in. It seemed a part of his nature.

During these years, he spent his vacations with us at our home, which he loved as few boys do. It was hard to get him to leave it, and his letters were always filled with inquiries about our home life, the animals, and things in general about the place.

His love of his home and his desire to return to it cost him his life. Friends on that fatal night urged him to remain in Los Angeles over night, but no, he felt that he must go home—the home he loved and the only one he ever knew.

While, to some extent, a dreamer, still

his mind was busy all the time, thinking and working out, in his own way, the problems of life.

Part of his summer vacations was spent at our Alhambra home, and part of them at Terminal Island, where we had a summer cottage. He was a bold, vigorous, expert swimmer and delighted in this pastime.

We noticed in the time he spent with us on his vacations, and from his letters, a marked improvement in his mental equipment. His physical development was gradual and satisfactory. Always large for his age, fond of outdoor sports and amusements, his frame was thickened and strengthened by open-air exercise.

During his summer vacation, after his 17th birthday, he accompanied me on a trip to Eastern Oregon. This outing he thoroughly enjoyed, and he returned to Belmont in advance of the party, because he did not want to miss a single day at school. He went back, happy and enthusiastic, glad to take up the grind again, and anxious to finish his schooling there in good standing.

Following his next summer vacation, he entered the University of California at Berkeley. He resided in a Fraternity house there, which, with the first October rains, had its cellars flooded. He caught cold and suffered more or less with tonsilitis during the entire term. The Berkeley climate did not agree with him. He loved the warm, dry atmosphere of Southern California. No day was too warm for him.

Having made up his mind that he wanted to study medicine, and feeling that he would be in better health here than near the bay, and that at his age it would be better for him to live at home, we allowed him to enter the Medical College of Southern California, on Buena Vista Street in Los Angeles, in the fall of 1903.

He resided at home, and went to his college daily in the electric cars.

At that time, he was several months over eighteen years of age, exceedingly well developed for his age, physically, and from the first day entered upon his studies with zest and enthusiasm.

Naturally of a quiet and reserved disposition, he did not care for society or for social pleasures, as they are commonly understood, and yet he liked his friends, was good company, and readily held his own in repartee or general social conversation with people of his own age.

The first year at a medical college is a steady, hard grind. The months passed quickly, and he grew more deeply interested in his chosen calling. The second year was less irksome, and the third year opened up to him new views on the possibilities of human life, its pleasures, trials and vicissitudes.

In the year 1905, his mother built for him a modest cottage near our family dwelling, consisting of a pleasant sitting and study room, with an open fireplace, a good-sized bedroom with bath-room connected, and in the rear of this latter a laboratory. In his bedroom were two single beds, and no week went by that some one of his fellow-students did not remain over night with him. In his study was a bed lounge, and very frequently it was also occupied by a fellow-student. Here they studied together, experimented in the laboratory and often worked far into the night. Here they frolicked and relieved the irksomeness of their toil, and lightened their daily burdens with boyish fun and enthusiasm.

During two summers, while at the Medical College, he spent most of his vacations at Idyllwild, a resort in the San Jacinto Mountains. Reveling in the free and open life of the place, he rode and tramped and hunted and rested, and drank in the glories of the beauty spots of the place, making frequent trips to the top of San Jacinto Peak or Tauquitz. From this vantage point, nearly 11,000 feet above the sea, the desert,

which always had a charm for him, the Salton Sea and the Imperial Valley—all were spread out like a vast map, far below him, and he never tired of the beauties of the scene.

In September, 1905, he accompanied me on a trip to the mountains of Siskiyou County on a hunt. It was a hard trip. We traveled 75 miles by stage, after leaving the railroad, and then as great a distance on mule back. He was sick with stomach trouble when we started, but came back much improved and was never bothered with it again. We had a fairly successful hunt, but he again failed to bag a deer, in fact his only opportunity was to shoot a doe, which he would not do. He was not well enough to make the long, hard hunts necessary to find the bucks.

At this period of his life, he had become an expert rifle and pistol shot, and his skill with each weapon improved until the day of his death. He was a perfect horseman and a first-class mountaineer.

The fall term of his school life opened in 1907, finding him eager for his work, and rejoicing that the last year only of his college life was ahead of him, and proud of the fact that he was a general favorite of his companions and of his professors. To me, all of the latter that I knew complimented him on his general bearing, good sense and his application to his studies, and they one and all predicted for him a brilliant career.

Six feet, two inches tall; already developed into a splendid specimen of physical manhood; well made and broad shouldered, he was sturdy, strong and active. His features were finely moulded, teeth perfect, lips full and firm, nose large but indicating character; eyes bright, penetrating, yet soft and loving, the poise of his head and carriage of his body good, and his wealth of chestnut hair, with just a tendency to curl, stamped him with all the beauty of a Greek god.

Being his last year at college, he was compelled, under its rules, to do a certain amount of practice, all of which fell with the poorer classes of humanity. This practice gave him an insight into the miseries of human life that he never had before.

He spent his winter vacation at home, or in company with some of his fellow-students.

College again opened, and he now counted the days that were to pass until he graduated, happy in the very joy of living. The future beckoned to him lovingly. He had selected the branches of his profession that he desired to specialize, and it was agreed that he was to go to Vienna for two years, just as soon as he had graduated and passed the State Board of Examiners.

While undemonstrative, his was a kindly and affectionate nature. He was loving and obedient to his parents, respectful of the rights of others, but not cowardly as to his own rights, which he was always ready to maintain. He possessed an acute sense of honor, and could be persuaded and reasoned with successfully, but from his early boyhood he could not be forced or driven. Something in his nature rebelled at harsh treatment and threatening language.

Generous to a fault, the misery he encountered in his limited medical experience deeply aroused his sympathy for suffering humanity.

At the last meal but one, taken with his family, large fortunes were under discussion and he remarked that if he had ample means, "he would found right here a hospital, at which the absolutely poverty-stricken could obtain priceless service without price."

A gentleman by nature, by instinct and by education, he never did a human being an intentional injury. To illustrate his high sense of honor, just after we came back from the Eastern Oregon trip, I gave him a good, serviceable gold watch upon the condition that he would not smoke until he became of age.

On January 10th, 1906, his twenty-first birthday, I was in bed with a broken knee-cap. He came to me early in the morning with his watch in his hand, and said, "Pop, please take this watch back. I do not deserve it. I have not kept my promise to you. I have occasionally smoked." I took his hand in mine, and told him to keep it for being man enough to acknowledge it. I never expected him to entirely refrain from smoking, but I am satisfied the restraint the compact imposed upon him was of great benefit to him.

At about this time he went with a party of friends on a trip to a mine in Arizona. This and his Oregon trip were the only times he was ever out of California.

And thus he lived in a simple way. He left his little cottage Saturday morning, February 29th, 1908, leaving the books he had used the night before on his desk, all of his things just as he ordinarily did, took the car to Los Angeles, his mother and myself going with Mr. and Mrs. I. W. Hellman by machine to Riverside. He was born on Sunday. At 1:30 o'clock on the morning of Sunday, March 1st, 1908, in the twinkling of an eye, he gave up his young life, and his mangled, bruised and mutilated body was brought to us Monday morning, and with the aid of hundreds of sympathetic and sorrowing friends, we gently laid him to rest in the San Gabriel Cemetery.

As the lot in which he was buried was a small one and seven bodies were interred in it, I recently purchased a larger one in the same cemetery, put a granite curb around it, erected on it one large central monument, and moved all of the bodies to it. His remains lie beside those of an infant brother, Griffith Graves, who died in 1883, before Selwyn was born. There are also at this time buried in the lot, my mother, my sister Kate Graves, my two brothers, Henry Emmett and Selwyn Haun

Graves, and our grandchild, Griffith Graves Stewart. As time goes by, those of us who are left behind will join him.

Of one thing I am more than proud. In examining his personal belongings, clothes, books, papers, letters, etc., not one thing, not one scratch of the pen was found that breathed of or suggested an impure thought. He was clean and pure, in person, in instinct, mind and morals.

All of his books and laboratory effects we gave to his Medical College.

If, in that Great Beyond we know not of, there is a home where the disembodied spirits of the dead dwell in peace and happiness, surely his pure young soul is there, performing the mission that his all too short career on this earth prevented his performing here, and waiting for the spirits of those he loved on this earth to join him.

March 1, 1909.

THE TRIPOD OF MEDICINE, SURGERY AND THE PATHOLOGICAL LABORATORY.*

BY A. VANDER VEER, M.D., ALBANY, N. Y.

It is a very embarrassing position to be in, this bringing coals to Newcastle. Since my stay here in this part of California, I have seen the evidence of your good work in so many ways that I realize it will be difficult to present much that may seem at all interesting, much less that which may appear new and of importance to you. I must in the remarks I have to present consider briefly some historical periods in my own professional career.

Take medicine as I remember it in my earlier years, being represented by such men as Dr. Alonzo Clark, Dr. Murchison in his stomach work, and other like men who were their associates at that time, and how pleasing to look back and remember their exceedingly good diagnoses—the former in his chest work and in the presentation of pathological specimens in their gross appearance, the latter in his study of stomach lesions and liver complications—Dr. Clark particularly strong when lecturing upon biliary colic and complications, and in presenting his pathological specimens, from the diagnostic point of view. No one at the present time could be more painstaking, more

impressive, more clear in his statements, and in giving all that the knowledge of his profession at that time could impart. Let me illustrate:

Specimen of kidney presented, that of a male thirty-five years of age, giving a history of distress in the right side and some other marked symptoms leading to the belief that the right kidney was implicated. After a prolonged illness of more than two years death, and at the autopsy left kidney was found in a healthy condition, as were all the other organs except the right kidney which was presented with the appearance of many multiple abscesses, and which Dr. Clark referred to very strongly as struma, or possibly tuberculosis, as this patient did show a cicatrix of the apex of the lung. No intimation at that time in the history of this patient of the possibility of surgical intervention. A little later I will return to this case.

Few of you here tonight can remember Dr. Clark's emphatic lectures and papers on idiopathic peritonitis and treatment by heroic doses of opium. But his etiology was sadly at fault, and the inquisitive surgeon was not always

*Before the Los Angeles County Medical Association, January 29, 1909.

comforted by the results in strictly adhering to his line of treatment.

From the surgical standpoint I think of Dr. Alden March of Albany, and Dr. Willard Parker, of New York, as representing possibly two of the most prominent surgeons at that time in the profession. They were two excellent anatomists, none better in the art of surgery—the former ambidexterous—and in the rapidity of doing an operation very few surgeons at that time, and in my observation since, could equal them. Dr. Parker, it will be remembered, was the first, in 1866, to operate for appendiceal abscess, and which was followed by a more thorough study about the ileo cecal region by us younger and middle aged surgeons and the better understanding of the conditions there existing, to which I will also refer a little later.

At this time there also appeared in the publications of the new Sydenham Society a translation of Goupil and Bernitz observations on pathological anatomy in which there were some of the best plates not very often equalled since, illustrating cases of pustules and similar lesions within the pelvis. But of this knowledge little practical results followed so far as the operating surgeon was concerned, because of our inability at that time to approach surgically important organs.

About 1870 there developed in this country, especially as the result of the Civil War, a class of men in addition to their surgical skill acquired as military surgeons, continued their pathological studies and sought to know the sources of Dr. Clark's cases of idiopathic peritonitis, also of the conditions that were found in connection with and about the appendix. There were men developing as gynaecologists who were anxious to know more of the many lesions that were met with within and about the pelvis, and these two groups of investigators, aided as they were by

such work as was reported by Formad of Philadelphia in a series of cases of autopsies held while performing his duties as coroners' physician in which he recognized quite a large number of cases of general peritonitis that were due to perforations of the appendix, and who ventured to refer to this pathological condition as the result of some foreign substance in the appendix, a condition that our long experience since has proven to be somewhat a fallacy, which was ably discussed, but finally a great addition made to our knowledge of appendicular pathology by the splendid work of Fitz of Boston.

In the decade beginning about this time, the work of Mr. Lister and the patient investigation of our German pathologist as a result; Goupil and Bernitz studies were being better understood and the position of the operating surgeon who yet believed in laudable pus was being crowded out. No pathological germs, no pus, but in all cases primary union.

A little later than this period Dr. Ernst read a paper before the American Surgical Association presenting the cultures of the various pathogenic micro-organisms that were found acting so important a part in the understanding of surgical pathology and demonstrating the fact that the pathological laboratory was to be as great a help to the surgeon, and even more than had gross pathology in the past.

And now came the great advance in histology and bacteriology. Immediately there followed antiseptic surgery and it was soon recognized that we could with greater freedom do something more in the abdominal cavity than merely removal of ovarian tumors. However, at times we had various set-backs. Our pathology and technic was questioned somewhat, and aided by such brilliant surgeons as Tait and others it was demonstrated that it was not germicidal but aseptic surgery we were after, that

with cleanliness, or rather sterilization of operation zone, sterilization of instruments, sterilization not only of the surgeon but especially of his hands and attention to his operating suit, the same care in regard to the operating room nurse and all assistants, proper preparation of room, sterilization of dressings, brought us an advance far ahead of anything that had been accomplished before. Now did the study of Goupil and Bernitz result in a great advance in abdominal surgery. The pelvis was approached with that same confidence that had been demonstrated in other fields of surgery, pustubes were approached and removed successfully, extra uterine pregnancy was diagnosed and most brilliant operations done. The abdominal cavity was carefully examined and pathological growths of every description reached, especially was there a marked advance in the treatment of acute cases of intestinal obstruction.

Surgery of the appendix was developed. The surgeon became inquisitive as to certain other surgical lesions. The other leg of the tripod was again consulted, the bacteriologist and pathologist responded, saying "your pustubes are in a majority of cases the result of gonorrheal infection, introducing valuable information regarding the gonococcus organism. Your appendix, as well as the gall bladder is invaded with the colon bacilli and typhoid germs in a proportion of the latter cases."

What now became of Dr. Clark's tubercular kidney, especially in the very obscure cases that presented? The followers of Dr. Parker had introduced and through the important technic of surgical procedure, removed diseased kidneys, but at times some very intricate cases were presented as to diagnosis. Take now the case of another man ten years younger than Dr. Clark's case. For two years had consulted many physicians and some few surgeons, all of them suspecting that he had some

trouble with the right kidney, but palpation, examination of the bladder, great emaciation failing to convince, and many symptoms being absent, it was a question as to whether it was really a tubercular kidney or not. Again the laboratory was consulted, segregation of the urine, the specimen carefully examined with the report that there was reason to believe there were present some few tubercula bacilli, the precipitate was injected into the guinea pig, with the final report that the pigs developed tuberculosis. A positive diagnosis was presented of tuberculosis and exploration made, the kidney with ureter removed and found to be one of those rare cases of interstitial multiple tubercular abscesses. The operation followed by complete restoration to health, emaciation relieved, the patient putting on a normal amount of flesh and remaining well for years after the operation.

Along with the aid of the laboratory, what became of Dr. Parker's work about the appendix? More careful studies in the dead room and a belief that in certain cases the appendix should be removed. An autopsy made by myself in 1873 upon a young lady dying of perforation of the appendix convinced me that in time we would be able to remove this useless organ and our patients recover and a general peritonitis be avoided. This conviction was sustained later by the positive investigation of the bacteriologist and pathologist in their laboratory work, together with the advances in aseptic surgery. Surgery of the appendix developed from Lister's splendid investigations as to the germ theory of suffuration and the right side of the abdomen now became the field of study and operative work of both the pathologist and surgeon. As I have said, the pelvis yielded first, then followed the surgery of the appendix, the large intestine, the kidney, the ureter, and previous to this the gall bladder, the liver, the lower portion of the

stomach gave up its surgical secrets, and through the pathologist gave much to the surgeon that has been of great comfort and the saving of much suffering to humanity.

At this period some of the greatest surgical victories in operative work were won. Cases were classified, surgical lesions were better understood, operative skill demonstrated that there was scarcely any part of the abdomen that could not be reached successfully by the surgeon. He was becoming more and more prepared for surprises, and while the conscientious surgeon made every effort toward a correct diagnosis, yet he prepared himself as well as possible for the rare and unlooked for complications that might present.

For instance, I had done a number of operations upon the gall bladder, when about eight years ago I met with my first case of gangrene of this organ. The patient was a lady of about forty, whom I had attended as her physician and in consultation a number of times for supposed gallstone colic. I was called to see her urgently in one of her attacks in which she had grown very much worse. Her symptoms were that of an approaching collapse. She was moved to the hospital and I believed that we had to deal with a case of gallstones, possibly with perforations. An immediate operation was done, and on approaching the gall bladder I was for a few moments considerably upset with the condition that presented. What seemed to be the gall bladder, dark and patulous in its feel with a gaseous sensation, separating on the least tension and revealing in a few moments the condition of gangrene of the organ, no gallstones present. Nature had thrown about the gall bladder at one time and another portions of the omentum so that it lay somewhat in a well; every part possible was removed and drainage introduced, and while the patient was exceedingly ill for a few days she

ultimately made a good recovery. Two years after I met with a similar case, and yet somewhat worse as to the extent of the condition of the omentum in its being also involved in the gangrenous condition, requiring ligation of portions of it and drainage through the posterior peritoneal pouch, making a good recovery. But I will not dwell upon these cases, only that we are to be prepared in abdominal work for all kinds of complication.

The abnormal length and anatomical distribution of the appendix, the history of the case leading one to believe that it is the appendix, and yet we find it to be a diverticulum, and condition of suspected gallstone simply one of cholecystitis, or the involvement of the pancreatic duct, the operation of drainage just the line of treatment required and by which our patient makes a complete recovery end in the obliteration of the gall bladder, making use of the common duct or pancreatic groove forming the channel for the bile to go on and perform its function. All these conditions that the surgeon must ever keep in mind.

While such great progress has been made, there is much, very much that is yet to be done in the investigation of the upper right hand quadrant of the abdomen. We have yet to study more thoroughly the duodenum and its important lesion, duodenal ulcer, the limitation of gastro-enterostomy and other operations upon the stomach, but particularly the study of the pancreas. Here is a field for much yet to be accomplished by pathologist, the man in medicine and the operating surgeon.

A great deal has been accomplished, a great deal yet remains to be done. In other portions of the abdomen we have yet much to do. The abscesses associated with diverticula, and which are sometimes to be opened through the rectum, the study in perforation in typhoid and prompt treatment, the use of the appendix in flush-

ing the large intestine from above in Amebic tropical dysentery and other like conditions; these and many other unsolved problems I would like to dwell upon, but time will not permit.

Only this I wish to emphasize that the physician and the surgeon must cultivate with great earnestness each other's help, the association of one with the other must ever be loyal and there must

be a confidence that in all cases will result in mutual good to the patient, and neither one can go on with his studies and investigation without the aid of the pathologist. Thus have I in a most imperfect manner, and with the limited time at my command, sought to reverse and establish the tripod of Laboratory Pathology, Medicine and Surgery.

THE EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS—SOME COMMENTS.

BY JOHN C. KING, BANNING, CAL.

Much has been written upon the subject of early diagnosis of pulmonary tuberculosis. In many of these cases there is legitimate doubt. Physicians cannot be expected to agree in all instances. I am confident that many of us are recognizing the disease earlier than formerly, because I am receiving more patients in very early stages. But what shall we say of our confreres who either fail to make diagnosis of advanced cases, or who lie to their patients regarding the condition? Permit me to epitomize a few examples.

Case I. Miss L. M., aged 31; nursed and slept with sister who died of consumption. Ill for two years. Cough, expectoration, fever, dyspnea; weight 103, menses suppressed, expansion $2\frac{1}{4}$ inches. Both lungs badly affected. T. B. abundant. Came to me for examination. One of the leading men in Los Angeles had, within ten days, assured her that her lungs were sound. She disapproved my diagnosis and returned to Los Angeles for further investigation. She writes to me that I attempted to deceive her, that two doctors, names not given, assure her that her lungs are sound, that no tuberculosis exists.

Case II. Miss L. J., aged 22. Came to me with a diagnosis of nervous

prostration, concurred in by two Los Angeles physicians, both of whom assured her parents that her lungs were sound and that she would recover promptly. I found cavities in both lungs, abundant T. B., temperature to 104 daily, night sweats, history of eighteen months illness with hemorrhage, cough and profuse expectoration. She was carried to our hospital and carried out dead in a few days, as I informed her parents would be the case.

Case III. Was called today to Mr. H., who has been the round of Los Angeles physicians for four years. Both he and his wife informed me that they had feared consumption, but all their medical men had claimed his lungs were sound. He is bedfast, in the last stages of the disease. T. B. in swarms in his sputum.

Case IV. Mr. H. M., aged 28. Consulted me for chronic diarrhoea. He has been in the Marysville Hospital for months. Physicians in Oakland and at the hospital assured him his lungs were sound. This in the face of hemorrhage, T. B., and manifest breaking down of tissue in both lungs.

Case V. R. S., aged 54, has been under care of Los Angeles doctors for over a year, who told his family he

had no lung trouble. He had been having hemorrhages, had cavities in both lungs, T. B. were swarming in sputum, but it was unnecessary to look for them. I gave a fatal prognosis and he died the following day from hemorrhage.

These cases have all occurred in the routine work of the past three weeks. They are only samples of what I am constantly meeting. One woman, who had hemorrhage, T. B., cavities, rectal fistula and marked evidence of several years tubercular infection, went to Los Angeles for examination. A brilliant young surgeon assured her husband that her lungs were sound, that her disease was of the pelvic viscera, that an abdominal operation would cure. She required "building up" preparatory to the operation, he claimed. The family gladly assented and the husband returned to Banning to warn other pa-

tients of mine they should seek a "real doctor." The woman died while "building up." It is incredible that such cases are not recognized. Of course, one must accept the statements of patients *cum grano salis*, and yet it seems that many of us are making incredible blunders. It is an incredible blunder to lie about tuberculosis. These people are distributors of infection. Not one of the patients above enumerated had been cautioned regarding disposal of sputa. Members of their respective families, and doubtless many others, have been exposed through their negligence. Yet they were blameless. Is it possible that no one reads the mass of stuff written upon this topic? Is it, further, possible that, reading, no one heeds? Is it not malpractice to lie to a patient about tuberculosis?

CHRONIC NEPHRITIS AND ITS ASSOCIATED LESIONS.*

BY JOHN W. FLINN, M.D., AND HARRY T. SOUTHWORTH, M.D., PRESCOTT, ARIZONA.

The kidneys form a very important branch of the sewage system of the body. For the proper performance of their function of excretion they are dependent on the assistance of the heart and the vascular system. So intimate, indeed, is the connection among these three organs, the kidneys, the heart and the vascular system, that it is practically impossible for any one of the three to become seriously deranged without, in time, affecting one or both of the others. This is exemplified practically in the fact that in quite a large proportion of the cases of chronic nephritis which the physician is called upon to treat, he finds the heart and arterial system also seriously affected: constituting what Tyson refers to as "cardio-vascular-renal disease." In fact, very often, the affec-

tion seems so evenly distributed among these three organs that the physician does not stop to try to determine which was primarily affected, or towards which his treatment should be principally directed; but groups them all together as "kidney and heart cases" and gives them similar and routine treatment.

To one who is willing to study these cases carefully, it is often possible to group each under one of four heads: (a) primary chronic paraneuritic nephritis; (b) primary interstitial nephritis; (c) primary arterio-sclerosis; and (d) primary heart cases; and to vary his treatment accordingly.

The object of this paper is, not so much to offer you anything new as to call your attention to certain groups of

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symptoms which, when found, point definitely to a lesion as being primary; special regard being given to what has been recently written by men who are recognized authorities on this subject. That this differentiation is hard at best and at times impossible, everyone knows.

Right here, let us remember that it has been recognized for years that cardiac hypertrophy may be a direct result of arterio-sclerosis or of contracted kidney, as well as of valvular disease of the heart. Hypertrophy, in these conditions, is due to over-action of the heart, (a) in response to a direct cardiac irritant, or (b) to overcome a resistance in the capillaries; both due to toxic substances circulating in the blood.

The resistance which the heart has to overcome is due to, (a) nonelastic and narrowed vessel walls, and (b) increased tension, causing increased vascular tension, and possibly (c) compensatory action of the heart, to increase the secretion of urine by forcing more blood through the kidneys. The hypertrophy in these cases affects the left and right ventricles, but more often the left only.

In regard to the casual relationship between arterio-sclerosis and renal disease, it is agreed by all that arterio-sclerosis is one of the principal causes of renal disease, especially the contracted kidney "with its fibroid overgrowth, which is the direct result of such sclerosis of the blood vessels of the kidney, shared with the system at large." (Tyson.)

On the other hand, Gull and Sutton and their followers claim that renal disease never causes arterio-sclerosis. Recent writers, however, are agreed that arterio-sclerosis may be the direct result of any form of renal disease if sufficiently prolonged; but more especially of the chronically contracted kidney. Perhaps this does not happen as often as was once supposed.

In both classes cardiac hypertrophy is secondary.

Again, renal disease may be the direct result of heart disease. This occurs in mitral stenosis, in mitral incompetency and in pure myocarditis. The result from all these conditions is the kidney of chronic "passive congestion or cyanotic induration in which there is eventually some overgrowth of interstitial connective tissue with resulting hardening."

Thus we see that the casual relationship existing among the diseases of the kidney, the arterial system and the heart is very intimate. Arterio-sclerosis may cause both nephritis and cardiac hypertrophy. Nephritis may cause both arterio-sclerosis and cardiac hypertrophy. Certain forms of cardiac disease with their accompanying hypertrophy may cause nephritis; but, so far as we have been able to learn, they will not cause an arterio-sclerosis.

Let us now consider briefly the aetiology and pathology of these conditions.

First of chronic nephritis:

Although clinically there are two well recognized groups of chronic nephritis, (a) chronic parenchymatous, represented more commonly by the large white kidney; and (b) chronic interstitial nephritis, corresponding to the small granular kidney. Still we must not forget that histologically there is no sharp line of demarcation between them, since interstitial and parenchymatous changes exist in both, and it is not always possible to tell in which tissue the disease began.

The involvement of the interstitial structure is especially marked in the late stages of all forms of nephritis.

In both parenchymatous and interstitial nephritis the immediate cause is an irritant, and the physician should always try and recognize what that irritant is; such as those of infectious diseases, acute nephritis, syphilis, alcohol, intestinal products, over-eating with lack

of exercise, or the intense worry and strain of business.

In the large white kidney, as would be expected, the chief changes are found in the parenchyma. The capsule is thin and easily removed. The cortex is swollen and yellowish-white, and the pyramids congested. The tubules, distended and containing tube-casts, have a hyaline, granular and fatty epithelium. The glomeruli are large and their capsules are thickened. The interstitial tissue is increased, but not to an extreme degree.

As this form of renal disease progresses the connective tissue gradually increases and in time shrinks, causing the small white kidney.

In chronic interstitial nephritis, the interstitial connective tissue undergoes marked hyperplasia from the beginning, in time contracting and causing the small granular kidney, characteristic of this disease. The capsule, instead of being thin and easily removed, is thick and adherent. The cortex is thin, wasted and reddish, in contrast to the swollen and yellowish-white cortex of the other form. The pyramids, in this form, are not congested but wasted, although the wasting is less marked than in the cortex. The tubules here are not always distended, but where the interstitial growth is most marked and contracted, they are greatly atrophied, and contain atrophied epithelium or sometimes none at all. In the uncontracted and projecting portions, the tubules are generally dilated and often to an extreme degree, while their epithelium has become hyaline, fatty or granular.

The most marked difference pathologically, between the two forms is found in the glomeruli. Instead of being large with thickened capsules, we find them atrophied in the small granular kidney. In time this atrophy becomes complete in a large number of the glomeruli, which are then repre-

sented by densely encapsulated, hyaline structures. A striking feature of the small granular kidney is the marked sclerosis of its arteries.

Second of arterio-sclerosis:

Arterio-sclerosis is caused by (a) toxic irritants, as those of alcohol, syphilis, renal disease, diabetes, lead-poisoning, gout and infectious diseases; and (b) by continued high blood-pressure, as found in over-work, mental or physical (especially when associated with alcoholic excess), nervous strain, neurasthenia, shock, diminution of thyroid secretion, or excess of supra-renal secretion. Heredity is an important predisposing cause of this condition, some people apparently being born with poor material in their blood vessels.

In both groups (toxic and high blood-pressure) we find well-marked changes in the arterial walls, beginning in either the intima or the media, and consisting essentially of a weakening of the elastic fibres of the media, and compensatory thickening of the intima. This thickening of the intima is to compensate for the weakened media, and consequent widened lumen. The hyperplasia is followed by degeneration, usually fatty, but sometimes calcareous, either of which causes inelastic arterial walls.

In the toxic group, the media is probably attacked by the toxic substances in the blood through the vasa vasorum; such substances setting up a spasm in the fibrous coat.

In the high tension group, there is a long continued and greater endarterial strain than the vessel is able to bear. Slowly the middle coat is forced to give way before the intravascular blood-pressure, the intima takes on compensatory thickening, and by degrees the sclerotic process is brought about. (Babcock.)

Arterio-sclerosis, if sufficiently prolonged, will produce hypertrophy of the left ventricle and interstitial nephritis.

DIAGNOSIS.

First of chronic parenchymatous nephritis:

"The essential characteristic is the persistent presence of a *considerable* quantity of albumin in the urine, together with granular, hyaline or fatty tube-casts." (Cohen.)

In quantity the urine may be nearly normal or considerably reduced; and the specific gravity is high in the early stages. A characteristic appearance is a pasty complexion with a marked pallor and oedematous eyelids. Uraemic symptoms are not very common and convulsions are less frequent than in interstitial nephritis. The blood pressure is moderately high.

Second of chronic interstitial nephritis: "The principal symptom is frequent micturition." The urine contains only a *trace* of albumin with a *few* hyaline and granular tube casts, principally hyaline; instead of having a *considerable quantity* of albumin with *numerous* granular, hyaline and fatty tube casts as in parenchymatous nephritis.

The urine is considerably increased in quantity and of a low specific gravity, in contrast to the normal or considerably reduced quantity and the high specific gravity of the large white kidney. There is little or no dropsy unless dilatation of the heart sets in, whereas in the other form dropsy is a marked symptom. Uraemic symptoms are usually present and here are met with in their most pronounced form, while in the other form these symptoms are less common and convulsions are comparatively rare. The blood pressure is very high, not moderate. A persistent increase in blood pressure being one of the earliest and most important symptoms of this disease. Retinal hemorrhages are common, while retinitis albuminurica is more frequent than in chronic parenchymatous nephritis.

An interesting point in this connection is to determine the clinical differ-

ence between this condition and the small white kidney found in the later stages of chronic parenchymatous nephritis. In both the urine is increased and the specific gravity is low. In the latter condition, however, the urine is "often turbid, may contain traces of blood, the tube-casts are numerous and of every variety, form and size, the albumin is abundant, and dropsy is usually present."

Third of arterio-sclerosis:

A sharply accentuated aortic second sound, with hypertrophy of the left ventricle, with apex displaced to the left; hard sclerosed radials; increased blood tension and increased blood pressure point definitely to arterio-sclerosis.

Fourth of the kidney of passive congestion and cyanotic induration following certain forms of primary heart diseases; more especially mitral valve disease and pure myocarditis.

In mild cases we find scanty, dark-hued urine of high specific gravity; a little more than a trace of albumin; and no casts at all or a few hyaline casts, more rarely granular.

In severe cases the albumin is much increased; the casts are still hyaline, rarely granular but increased in number; a few red blood discs may be seen under the microscope, but never by the naked eye.

We will now consider the differential diagnosis between primary chronic interstitial nephritis and primary arterio-sclerosis.

There are certain symptoms common to both, (a) insidious onset, (b) absence of dropsy (except in the very last stages of primary interstitial nephritis), (c) scanty albuminuria and (d) very few hyaline casts.

In quite a number of cases, however, there are appreciable differences. In the nephritis the albumin and casts are found rather earlier, while in arterio-sclerosis there is often no albuminuria whatever. In the former are found reti-

nit is albuminurica, retinal hemorrhages and the more serious derangements of vision. In the later we find vertigo, tinnitus and amaurosis due to anaemia and imperfect circulation; while retinal changes are early and consist of a thickening of the arteries, which compress the veins where they cross them.

True uraemic symptoms are found only when the kidney lesion is primary, although in arterio-sclerosis there may occasionally be found symptoms simulating uraemia; due probably to the changes in the walls of the blood vessels of the brain.

The most important difference between the two conditions is in the blood pressure. Here it is interesting to note that "a constantly maintained high arterial tension in an adult is nearly always indicative of a distinct pathological process in the cardio-vascular or renal system." In arterio-sclerosis, however, the blood pressure is not increased nearly so much as in primary interstitial nephritis, where the maximum pressure may reach 220 m.m. of mercury, or more.

A characteristic symptom of arterio-sclerosis is a tendency to emaciation and loss of weight; a pallor and loss of vigor due to a condition of the arteries interfering with nutrition.

The next differential diagnosis which we will consider is that between chronic parenchymatous nephritis and the kidney of passive congestion and cystotic induration which, as we have shown, follows mitral disease and pure myocarditis.

The symptoms common to both are dropsy, albuminuria and casts. In the primary heart lesion, however, a mitral murmur is usually present, which is, of course, absent in primary nephritis. In the former the urine is scanty, high colored, of high specific gravity, and tube casts may be present. In the latter, the urine is more nearly normal in quantity, of a dirty yellow or smoky color, and

the albumin and casts are more likely to be plentiful and the casts more varied in kind.

In the cardiac condition there is marked shortness of breath occurring early, while in the renal disease it is less frequent and occurs later. On physical examination the aortic second sound is found to be sharply accentuated when the kidney lesion is primary, while when the heart is primarily affected accentuation of the pulmonic second sound occurs.

In this differential diagnosis, too, the estimation of the blood pressure reveals important differences. Incidentally Tyson says that "At the present day no examination is complete without estimating the blood pressure." As you will remember the blood pressure is high in both kinds of kidney cases, and highest in renal sclerosis; while in mitral disease the blood pressure is low.

The last differential diagnosis is between primary heart disease and chronic interstitial nephritis in its last stages, when cardiac hypertrophy has become dilatation, the accentuation of the aortic second sound grown weak and feeble and dropsy come on.

In the latter the heart is very much larger and enlargement is to the left only; while in the former the enlargement is both to left and right. In primary heart disease the blood pressure is low while in the kidney lesion it continues high. Uraemic symptoms are likely to intervene in the renal condition, while they are very rare when the cardiac lesion is primary.

A word as to prognosis. It is much more favorable when the heart lesion is primary even when dropsy is extreme. In chronic parenchymatous nephritis it is "Extremely grave. In a case which has persisted for more than a year recovery rarely takes place." In chronic interstitial nephritis, although the affection is "Inevitable it is compatible with the enjoyment of life for many years."

TREATMENT.

The limits of this paper would not permit us to differentiate treatments to the same extent that we have diagnosis. Moreover since the treatment is purely symptomatic and many symptoms are common to two or more forms, such fine differentiation is always difficult and sometimes impossible. Still, we hope to show that the differences in treatment are sufficiently marked to make a careful differential diagnosis imperative.

We shall discuss treatment under two heads. First, the treatment of those cases in which the primary affection consists of sclerosed connective tissue, whether of the kidney or of the blood vessels. Second, the treatment of those cases in which the parenchyma of the kidneys are principally affected, whether by active or passive congestion with their resulting inflammations.

Under the first head we shall include chronic interstitial nephritis in its earlier stages and general arterio-sclerosis; under the second head, chronic parenchymatous nephritis, chronic interstitial nephritis in its last stages, and passive congestion of the kidneys with cyanotic induration.

In the first class, the most important consideration is dietetic treatment.

Since the toxic substances which have caused the sclerosed connective tissue by their irritative effect have, in a large number of cases, arisen from an over consumption of food, clearly the first thing to do is to eliminate from the diet those articles which are responsible for this condition. Eliminate proteids, tea, coffee and alcoholic drinks and substitute milk, cereals and vegetables. Treat constitutional syphilis, diabetes or gout, if any be present. Over-work, mental or physical calls for rest.

As regards the medicinal treatment of this class we may possibly retard the increase of connective tissue in the blood vessels and the kidney, and of the hypertrophy of the heart, although we

cannot remove these conditions. The iodides are of first importance as they have a tendency to remove overgrown tissue, and also to act as permanent vaso-dilators.

The rest of the treatment is purely symptomatic. Digitalis is rarely called for, and is often harmful. When the heart's action becomes too powerful order rest, reduce the amount of food and prescribe aconite. When the high blood pressure is due to vascular spasm the nitrites are especially indicated, and sodium nitrate is probably the preferable preparation. Rest in bed and massage are valuable remedies when blood pressure is high.

In the second class of cases, it is very necessary to make a careful differentiation of the primary condition in order to be able to select proper remedies. Fortunately the treatment is almost identical up to a certain point.

In all these conditions rest in bed should be insisted on. A milk diet should be ordered.

In primary heart cases liquids should be restricted, although they may be the best *form* of food. Milk is still considered the preferable food by many because it is so easily assimilated. Two ounces every two hours is quite sufficient to sustain the patient for some time, since he will derive considerable nourishment from his serous effusions.

Remove liquids by hydragogue cathartics, or if necessary by incision or Southey's tubes; sweat your patient by hot air, vapor baths or hot packs; and try to increase the secretion of urine by stimulant diuretics.

Of diuretics, the derivatives of the caffein group are especially useful, since they act directly on the renal epithelium, which in this class of cases retains a certain degree of integrity. Of these caffein and theosin are probably the most useful preparations. Caffein has the advantage of being also a cardiac and cerebral stimulant. Tyson recom-

mends giving digitalis and caffein alternately every two hours; using 5 to 10 minims of the former and 3 to 5 grains of the latter.

In primary renal cases the same purgatives and sudorifics are useful, but stimulant diuretics are absolutely contra-indicated. In their place use what some authors term hydragogue diuretics which act on the kidney through the circulation.

In other words, in primary heart cases direct your treatment principally towards the kidneys, and endeavor to rest the heart. In primary renal cases, rest the kidneys and treat the heart and vascular system by using drugs which increase cardiac contraction and increase osmosis.

Of hydragogue diuretics digitalis and strophanthus are our best remedies. Broom, or its active principle spartein,

sometimes acts very nicely. The alkaloid should be given in doses of three-fourths ($\frac{3}{4}$) grain every three hours.

The salines or osmosis producers, including citrates, tartrates and acetates are useful.

Apocynum cannabinum, or preferably its active principle, apocynin, by its combined purgative and diuretic effect has been found to be especially serviceable. Guy's pill, a combination of calomel, squills and digitalis has a similar effect and often acts very nicely.

On the whole the treatment of any of these cases is not always satisfactory, but it is certainly much more effectual when it is guided by a careful diagnosis.

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THE CALMETTE REACTION.*

BY W. WARNER WATKINS, M.D., PHOENIX, ARIZ.

Our Committee on Arrangements wishes a short resumé of the present consensus of opinion regarding Calmette's Test, or the tuberculo-conjunctival reaction. Having nothing new to add to the evidence which has been appearing in our medical journals, and it being presumptuous for me to attempt a critical review of articles written by the various investigators, and, further, it being superfluous to discuss before this body of well-informed physicians the technique and characteristics of the reaction, the scope of my remarks are, consequently, narrowed down to a small circle; but this circle contains the things which are of practical interest at the present time to this special body of physicians practicing in this particular locality.

Forty observers reporting on about five thousand cases express themselves

all the way from an enthusiastic endorsement of Calmette's claims to an absolute rejection of the procedure as a measure of any value whatever. The aim, of course, of all the experimentation has been to develop something which will assist in the diagnosis of tuberculosis in its early stages—whether pulmonary, visceral or surgical—because there is no demand for an aid to the diagnosis of the disease in its later stages, when the condition is all too evident even to the casual observer. Calmette's claims are that the test is harmless, easy of application, and as positively diagnostic as the subcutaneous injection. For the purposes of these remarks there is only one query regarding the reaction:

Will it assist us materially in the diagnosis of cases suspected of a beginning tuberculosis, either in proving

*Read before the Maricopa County Medical Society, November, 1908.

or disproving its presence; and, can we at this time incorporate the procedure into our general practice as a routine method of arriving at a definite conclusion?

It is true that with a large number of cases chosen indiscriminately, regardless of their stages of development, the test reacts positively in from 75 to 90 per cent.; and that it fails to react in about the same percentage of individuals supposedly non-tuberculous. But we do not care for the test—save as a clinical curiosity—in cases where the physical signs of the disease are palpable and the bacilli can be found in the sputum. Of course, it has been necessary to experiment on this class of cases in order to establish the certainty of the test, but for our benefit it is desired to know only whether it has been established that the test is feasible and reliable in cases of pulmonary tuberculosis presenting uncertain signs, with no bacilli in the sputum and in whom, consequently, a diagnosis may remain uncertain until Time shows its nature. With exception in cases of articles by one or two observers, it has been hard to weed out this special class of cases from reports. But it would seem that with incipient tuberculosis too early to be diagnosed by physical signs and the microscope, the test is positive in a considerably smaller percentage than is usually reported of a number of cases chosen at random; that a reaction in this class of cases is not more positive evidence of tuberculosis than the Widal test is of typhoid, should the classical symptoms of typhoid be absent; nor is a failure to react more indicative of the absence of tuberculosis than a negative Widal of the absence of typhoid. As a differential test between typhoid and tuberculosis, it cannot be depended upon, because typhoid (notably) creates such an anaphylaxis as will produce a reaction in about fifty

per cent. of the cases, which is just about the percentage of reactions given by incipient tuberculosis. Such a hypersensitiveness is also created by a first instillation, so that a retrial in the same eye cannot be depended on at all.

A great deal has been written about the dangers to the eye connected with the application of the test, and where there is so much smoke there must be some fire. Certainly we are safe in saying that it should first be determined that there is not present, nor has there recently been present, any extraocular or intraocular disease, even going so far as to demand an examination by a competent ophthalmologist if in doubt. It is true that the vast majority of the inflammations induced recover without untoward results, but ten thousand such recoveries does not excuse us when one case of blindness results from the effect of tuberculin on a condition which, had it been detected beforehand, would have contraindicated the application.

The conclusions to be gleaned from conflicting opinions now extant, those which have influenced me in the two or three office consultations where the need for other aids than those usually employed was felt, are about these:

1. In the vast majority of cases which come to the physicians of this community for treatment, no other means of diagnosis is required than the physical signs and the microscope.

2. In doubtful cases where an incipient pulmonary tuberculosis, a visceral tuberculosis, or some surgical condition which may be tuberculous are suspected, a reaction is only *presumptive* evidence; it materially strengthens the suspicion, but cannot be said to prove the diagnosis.

3. A reaction after a second instillation cannot be depended upon.

4. As general practitioners we cannot safely use the test indiscriminately.

In isolated cases where all known means of arriving at a diagnosis are required to clear it up, we may use the conjunctival test; and, in truth, it is only in such cases that we need to use it.

5. We should be assured of the absence of any disease of the eye before proceeding.

6. All this applies only to the test in its present stage of development.

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CLIMATE OF SOUTHERN CALIFORNIA.

BY J. A. MUNK, M.D., LOS ANGELES, CAL.

The littoral of Southern California is also a part of the arid zone, but its desert features are greatly modified by its proximity to the sea. On the south and west it faces the ocean, while on the north and east it is walled in by a high range of mountains. Its unobstructed waterfront freely admits the cool sea breeze, and the natural mountain barrier gives protection from both summer heat and winter cold. There is a complete absence of all weather extremes and every day furnishes its quota of pleasant weather.

The impression seems to prevail in the East that Southern California is a hot country, which is a mistake. On the contrary the coast climate is more cold than hot, and medium weight clothing is worn for comfort even through the summer. Once or twice during the season there may be a few hot days, but the nights are always delightfully cool. It is never hot enough to make you want to coax a cool breeze out of doors in the evening. Indeed to sit passive in the open air after sundown is, as a rule, too cool for comfort. The sunshine sometimes feels uncomfortably hot, except when the sea breeze blows; but even on the hottest days of summer it is only necessary to step into the shade to find immediate relief from the heat. Where the sea breeze blows even the sunshine feels cool.

FOG AND CLOUD.

Clouds on the Pacific Coast are often spoken of as a fog, which is a misnomer. A real fog, in which the atmosphere appears as a white mist, is not common. In the spring and fall a

few foggy nights occur, but they are not frequent. Clouds are of almost daily occurrence during the summer months, but are never accompanied by rain. A cloud forms during the night which covers the whole sky. The uninitiated tourist, who is only familiar with eastern weather, when he looks out in the morning and sees such a sky imagines that a rain storm is about to break. If he has occasion to go out he sallies forth with an umbrella, which is the badge of a tenderfoot. The appearance of an umbrella on the street on a cloudy summer morning, denotes that the owner is a stranger in California. He expects rain but is agreeably disappointed as rain never falls from such a sky. During the entire summer this form of cloud comes and goes almost daily, yet without rain. The cloud serves a useful purpose by protecting the land from the hot rays of the morning sun and is a daily feature of normal summer weather. If the cloud fails to appear it is a sure sign that the day will be hot, or at least that the thermometer will mark the temperature above normal. When one such day happens it can be depended on with almost absolute certainty that it will be followed by two, three, and possibly four, such days that will be warmer than usual. Every clear morning, also, means that there will be little if any sea breeze during the day. If the morning cloud canopies the sky it is certain that there will be a sea breeze to dispel the cloud and the entire day will be comfortably cool. The summer cloud is as much a distinctive feature of our incomparable

climate as is the sea breeze. This cloud usually vanishes sometime during the forenoon and in the afternoon the sky is clear.

In the winter there is no sea breeze nor is there need of any, as the weather is cool enough without it. The character of the clouds also change and instead of the summer "fog" cloud the real rain cloud is in evidence; but the clouds do not act here quite the same as elsewhere. There are days when the different varieties of cumulus, cirrus and nimbus clouds may be seen, but they are not as distinctive or numerous as they are on the prairies or in the country farther east. Here in California the clouds seem to be ever ready to take on the stratus form, and nimbus capped thunder heads are seldom seen except as they appear on the distant mountains. Thunder and lightning occur very rarely, so seldom, indeed, that they are a curiosity and cause general comment.

A general rain is usually preceded for several days by a soft, steady south or east wind, and a hazy atmosphere. In due time the gentle rain begins to fall, coming straight down from the sky and without wind or commotion of any kind. The tinkle of the rain drops as they fall softly in the first gentle shower of the season is the sweetest music that ever falls upon a Californian's ear. The thirsty earth, after many months of drought, quickly drinks in the moisture as it falls, laying the dust; the sky and earth are also washed clean and all nature smiles at the visitation. Although the wind blows from the south, the rain comes from the north. No rain need ever be expected locally until after it rains farther up the coast. It usually requires twenty-four hours, after rain begins to fall at San Francisco, before it reaches Los Angeles. The amount of precipitation varies with the locality. The rainfall is heaviest up north and diminishes as

it travels south. At San Diego the average annual rainfall is about five inches, at Los Angeles the amount is fifteen inches, at San Francisco thirty inches, and increasing in amount in about the same ratio on up the coast at Sitka, Alaska, where it measures fully 130 inches.

The reason why there is no rain in Southern California in the summer, notwithstanding that the atmosphere is cool and damp, is because the air never gets cold enough to condense its water vapor below the point of saturation. It is also the reason why there are no destructive wind storms or tornadoes. There is no cold stratum of air to fall out of space or mix with any body of hot, moist air near the surface of the earth. A combination of these two extremes is necessary to breed any kind of storm and this never happens on the Pacific Coast.

In the East a rain storm is usually ushered in by a hot wave that is followed by a decided drop in temperature after the rain. In Southern California these conditions are, as a rule, reversed, a cool spell of weather preceding the rain and warmer weather following it.

As pleasant as is the winter climate of Southern California, the summer weather is even more enjoyable. Every day during eight months of the year is perfect picnic weather. No outdoor function need ever be postponed during that time on account of stormy weather. Any day that may be chosen can be set months in advance for such an event with the full assurance that the weather will not interfere with the program. All kinds of outdoor exercise can be taken with comfort during most of the year. The conditions are ideal for camping and tramping and living and sleeping out of doors in the open air.

THE SEA BREEZE.

The sea breeze, as already stated, is one of the characteristic features of Southern California climate. It blows

directly off the ocean, beginning before noon and quitting at sundown, and is as cool and fresh as a breath off a snow bank. It is neither extremely damp nor dry, but just right for most people to enjoy. It is the one factor more than any other that makes the climate so delightful. It is cool in all seasons and the winter only feels warm by contrast.

Two local causes contribute to make this fortunate combination, the ocean and desert; and here, again, it is difficult to duplicate the same conditions any where else upon the earth. In the Pacific Ocean flows a deep, broad stream called the Kuroshio, or Japan Current. It begins off the coast of Japan, flows northeast past the Aleutian Islands until it reaches the American coast. It then turns southward, flowing along the California shore as far down as the equator. Here it bends westward and follows the equator to its beginning. It thus completes a gigantic circuit that extends over thousands of miles of ocean. The movement of this current causes the waters to mix over a wide expanse of sea and gives to it an even temperature. The water of the Pacific Ocean varies only eight degrees, Fahrenheit, during the entire year, while the difference in the Atlantic Ocean during the same time amounts to forty degrees. Any large body of water necessarily affects the temperature of the atmosphere above it; and this is the cause of the air over the Pacific being always cool like the water. On account of the placidity of its waters the ocean received its name of Pacific.

Over the mountains on the desert and far away from any water, the air in summer becomes very hot and dry. Hot air is light and ascends, while cold air is heavy and sinks. The hot desert air rises rapidly into space which causes a vacuum near the earth that must be filled. This can only be done by cold air rushing in from somewhere outside. After the heated air reaches a height

of a mile or more, an air current carries it off westward over the mountains and out onto the sea. Here it mingles with the ocean air and becomes cooled, when it returns to the land as the refreshing sea breeze. During the period of greatest heat on the desert the sea breeze from the ocean blows the strongest through the mountain passes in the direction of the desert in an attempt to fill this vacuum. In its overland journey the sea breeze gradually loses its coolness and moisture, and by the time it has fulfilled its mission has changed back again to desert air.

As soon as the sun sets on the desert, radiation of heat ceases and coolness gradually returns. If there is any wind it soon dies down to a calm. After a brief stillness a return breeze springs up that starts in the direction of the ocean and is called the land breeze and blows during the night. These exchange or trade winds, as they are sometimes called, are very regular during the summer season and give to Southern California its cool, dry summer climate. The soft, summer morning cloud, bright afternoon sunshine, and cool sea breeze, form a combination of climate that could not be improved if made to order.

CONCLUSION.

The people of the United States are fortunate, indeed, in having the arid Southwest consisting of mountains, valley and plain—vast unoccupied breathing spaces—as an ample play ground and natural health resort, where the overworked and invalid folk of the nation can go to rest and recuperate. The country is changing now and will change yet more in the future but, owing to its arid condition, it cannot change very rapidly. It is very much desired and to be hoped that the prevailing conditions will remain as they are at present in a wild state and no radical alterations take place for many years to come.

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OCULAR MANIFESTATIONS OF HYSTERIA.*

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The syndrome, or symptom complex, which we denominate hysteria, presents such multiform phases, copying at times organic lesions so closely that it oftentimes becomes a subject of careful study to determine whether we have to deal with an organic lesion, a pure neurosis, or an admixture of the two; and in endeavoring to settle the question, a careful examination of the eye for disturbed function often furnishes most satisfactory evidence. Inasmuch as the eye, with its adnexa, is the most complex organ of the body, it is good reasoning to expect that these various functions would be disturbed in the numerous manifestations of the condition, and as a matter of fact, this is true, and there appears to be no function of the eye which may not at sometime be modified, or altogether abolished, in the course of an attack; and on the other hand, there are very few cases of hysteria in which some ocular manifestation is not present.

The single symptom, anesthesia, so widely distributed about the body in hysteria, so valuable in the diagnosis of this condition, is here one of the most constant signs, and may be found to be present in any sensitive tissue to which we have access; and this applies not only to the skin on the lids, the ocular and palpebral conjunctiva, but to the deeper structures as well.

There are also cases in which these functions are exalted, and a hyperesthesia is present; this occurs much less frequently than the former, but when found, independent of other well-known causes, is of equal significance. There are a number of classifications of the ocular manifestations of hysteria, but the one presented here appears to the writer as easily carried in the mind as any observed.

I. Anesthesia; of the eyelids, the conjunctiva, the cornea and the retina, which latter may be either for light, form or color.

II. Hyperesthesia of the skin of the lids, of the conjunctiva, cornea, retina and ciliary muscle.

III. Disturbances of the motor apparatus, as spastic convergence, conjugate deviation, blepharospasm and ptosis.

IV. Disturbances of accommodation and pupil reaction, as cyclospasm, cycloplegia, myosis, mydriasis, alternating myosis and mydriasis, unilateral mydriasis, paradoxical pupil reaction and exaggerated hippus.

V. Unclassified visual disturbances, as central scotoma for light and color, peculiar effects of red on vision and fields, monocular diplopia and polyopia, micromegalopsia, monolateral amblyopia and amaurosis, disappearing in binocular vision and monocular achromatopsia, disappearing in binocular vision.

As stated above, there is probably no symptom so universally present in some of its phases in hysteria, as anesthesia, and there appears to be no organ which is capable of this disturbance which may not be affected, as well as the specific functions of special sense; therefore we may get loss of sensation of the skin, more or less extensive, also of the mucous membranes, particularly of the nose and throat; a loss of the voice, and a loss of the sense of hearing; but it is of the organ of sight and its adnexa which it is desired particularly to discuss in this paper.

ANESTHESIA OF THE SKIN AND MUCOUS MEMBRANES.

In many of these cases, the examination of the skin of the eyelids, as to their sensibility, is of value, and the anesthesia of the lids may be monocular,

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or the lids of both eyes may be insensitive, and this insensibility may be confined to the area of the eyelids, or may extend more or less to the surrounding skin.

With, or independently of, the mucous membrane of the palpebra and of the bulb, the cornea is found more or less anesthetic. For some reason the conjunctiva of the left eye appears much oftener anesthetic than the right, and the ocular conjunctiva than the palpebral; though it *may* be universal in one or both. Perhaps I should not have said universal, for the area over the pupil does not appear free from sensation; though Paranaud states as his belief that it is more the sight of the object over the pupillary area which causes the lid reflex, than actual sensation.

ANESTHESIA OF THE RETINA.

Anesthesia of the retina manifests itself by impaired vision. It is not the purpose of the writer to discuss just where, anatomically, this disturbance resides; whether in the retina, the cortical visual centers, or elsewhere; as a matter of fact, the retina is the organ believed to be disturbed, though many competent observers consider it to be central. This impairment of vision presents various characteristics. An amblyopia, or reduced vision, is common, and this may be monocular or binocular, may be simple reduction of acuity of vision, or the loss may be absolute. In cases of recent loss of vision, without evident ocular lesion, it is often interesting to note the rapid improvement which is obtained while trying various weak lenses. The initial vision may not be more than one-tenth normal, though inside of ten minutes by the use of a series of weak lenses—and it makes little difference what you use—the vision may become normal finally, by the use of a plain glass. This discovery has been responsible for much concern on

the part of many an inexperienced refractionist.

CONTRACTION OF THE FIELD OF VISION.

With the reduction of the acuity of vision, or independent of it, is often a contracted field which is denominated concentric. This statement is correct if one refers to the center of normal vision, but if referring to the center of a normal field, it would not be concentric. Therefore in speaking of concentric contraction of the field of vision in hysteria, it is understood that the length of the radii toward the periphery from the point of fixation, are practically uniform. This contraction may be moderate at first, but often the field becomes smaller and smaller, until but a very small central field remains; and even this, as stated above, may be lost. This statement refers to light and form. A somewhat singular condition exists in these cases with greatly reduced fields, in the fact that, though in the taking of the fields in the usual manner, it is found to be so much reduced that an ordinary individual would have much difficulty in getting about, the hysterical patient seldom has much trouble from running against objects which appear out of the field of vision. Various explanations have been offered for this; among them is that of Wilbrand, who thinks that the outer portions of the retina are not so completely anesthetic that they cannot see larger objects, while the small test object usually used produces no retinal impression.

EFFECT ON COLOR VISION.

In reference to color vision we have some especial disturbances. A concentric limitation of color vision—a dichromatopsia—for all colors is often seen; indeed, this contraction of color fields *may* be so complete that no colors are observed—an achromatopsia, and this, like the vision for light and form, may be either monocular or binocular.

BINOCULAR VISION WITH ONE BLIND EYE.

Hysteria is a most peculiar condition,

and one of its especially peculiar symptoms is the ability with one hysterical blind eye, to get binocular vision with both eyes uncovered. This condition is easily discovered by placing a five or six degree prism, base up or down, before one eye, when the patient will see double, and this applies as well to monocular color blindness as to the loss of vision for light and form.

"INVERSION OF THE COLOR FIELDS."

Another abnormality of the color vision is what is known as "inversion of the color fields." This expression is not essentially a correct one, for the reason that it takes into account only two colors: viz., blue and red. In taking the color fields, the colors commonly used are blue, yellow, red and green, and from without in, their normal relations are as above. This inversion is manifested by finding the field for red larger than that for blue, which normally has the larger field. Now this inversion may be produced by a contraction of the field for blue, while the field for red remained stationary, or by an expansion of the field for red; indeed, the red field may be found to exceed the field for white when the latter is contracted. There are other peculiarities in reference to the color red, which will be discussed later. In taking the color fields with the perimeter, it is not unusual to find them holding their normal relations in some parts of the field, while in others, the red will be found to extend to considerable distance outside the blue, but a true inversion of all of the color fields does not occur in any condition. In finding this color field inversion in a case, the investigator must not jump at once to the conclusion that he has a sure case of hysteria to deal with; as this is quite the proper arrangement of the color fields in retinitis pigmentosa, which also has a concentric limitation of the fields for form and light; and the

same statement holds true in some cases of quinine toxemia; also in nitrobenzol poisoning and in xerophthalmos. This condition—hysterical amblyopia—may be illustrated, in some of its phases, by a single case from the writer's records. January 31, 1900, Miss K., aged 18, complained of dread of light, with no inflammatory condition apparent. Two days later, vision reduced to one-fifth normal, field for form to one-half, and all sense of color appreciation lost. Various worsteds in Holmgrens set appeared gray, varying only in shade. Three days later vision reduced to one twenty-fifth, or counting fingers at eight feet. Field for form reduced to 15° to 20°, and has some trouble in getting about the house, and no colors seen. The next two years of this young lady's life were spent in getting better and getting relapses, not allowing herself to be treated at one time sufficiently to regain either vision or health, when she again came under treatment sufficiently to regain both, since which she has had no more ocular manifestations of the trouble, so far as I am aware. In certain cases of retinal anesthesia amounting to complete loss of vision in the region of the macula, as well as the general field, the pupillary light reflex is left intact. Now complete loss of vision in both eyes is practically always due to destructive lesion of the optic nerves or tracts, and in lesion of this character, the pupil light reflex will not be preserved; therefore, a blind patient, with the preservation of this reflex, particularly if without apparent fundus lesion, is practically always a hysteric.

HYPERASTHESIA.

As stated above, this form of heteresthesia is much less frequently observed than the anesthetic form. This condition is manifested by small areas about the eyelids, or conjunctiva, of more or less acute hypersensitiveness. These, in the absence of neuralgia of

nerve trunks, are considered by Schwartz as characteristic of the condition. Hyperesthesia of the conjunctiva and cornea are occasionally seen, and are usually accompanied by amblyopia, increased flow of tears, and often with blepharospasm. In certain cases, a considerable degree of dread of light is observed, which has been called variously, hysterical kopiopia, painful accommodation, and retinal hyperesthesia. The simple dread of light, of itself, is far more frequently a symptom of ocular inflammation than of hysteria; yet in cases in which there is no inflammatory condition, and associated with other suspicious signs of hysteria, this, with a profuse lachrymation, deserves consideration. In cases of hyperesthesia of the retina, it is not uncommon to find the fields for form, light and color enlarged; the fields for color may retain their normal relations, or the red may be found to exceed the blue, and at times, even the limits for white.

HYPERÆSTHESIA OF THE CILIARY MUSCLE.

Painful accommodation, or hyperæsthesia of the ciliary muscle, is another form of hypersensitiveness of the eye which is often associated with this condition; but inasmuch as it, also, is a symptom of inflammation, of itself it has little value as a sign of hysteria.

DISTURBANCES OF THE MOTOR APPARATUS

Of the disturbances of the motor apparatus, spastic convergence is the most frequent. This condition, when observed, is one of the most positively diagnostic symptoms of hysteria; and consists of a fixed condition so far as the muscular relations of one eye to the other are concerned; i.e., when an object is approached from the distance it is seen double until it reaches a certain point, say fifty centimeters, when it is seen single; if brought nearer it is again seen double, showing the inability of the subject to converge or diverge

from a given point. Occasionally this symptom—spastic convergence—is an *early* sign of an attack of hysteria. Another motor anomaly is seen in spastic conjugate deviation, when both eyes look either to the right or left. Inasmuch as this is a symptom seen in irritation of the cortex of the brain in the motor area, in uremic convulsions, as well as in cerebral hemorrhage, these conditions must not be overlooked in the diagnosis. Another hysterical motor disturbance is blepharospasm, which may be either clonic or tonic. The clonic form is manifested by a more or less constant trembling of both eyelids which does not disappear, even in sleep. The tonic variety is usually monocular in which the orbicularis is in a state of tonic contraction, throwing the skin of the lids and surrounding region into folds; in fact, the muscles of the face often participate to a marked degree in the spasm. In endeavoring to open the eye by lifting the lid with the finger, one meets with marked resistance, and if the patient attempts to open them by his own efforts, the only effect noticed will be a trembling of the lids, without any particular separation of them. This contraction may be, and often is, accompanied by pain, though it may be painless. Blepharospasm is usually associated with anesthesia of the skin and conjunctiva, by dischronatopsia, and at times with asthenopia. Finally there may be a ptosis, or as it is usually called, a pseudo-ptosis, when the patient is unable to raise the eyelid. It will be noticed in these cases, that the eyebrow is lower on the affected side than the opposite, and if the fingers attempt to raise the lid, more or less resistance will be felt.

DISTURBANCES OF ACCOMMODATION AND PUPIL REACTION.

Hysterical cyclospasm is a condition difficult to duplicate in any other disease, and consists in a tonic spasm of

the ciliary muscle, which gives the patient distinct vision only at one point, or at least a very short range; i. e., the patient will see his best at, say sixty cm., but if the test object be moved much nearer or farther, the object is much blurred; and in case the patient has not discovered his point of distinct vision, thinks he can see nothing clearly, as both his distant and reading points are out of focus. In a suspicious case of this character, the condition is easily discovered by taking a fairly large test object, and gradually receding from the eye till a point is reached where the vision is best, often fairly good. Now there are cases in which instead of cyclospasm, a cycloplegia is found, the patient having no power of accommodation at all, and oftentimes closely resembles the post diphtheretic form. Either the cyclospasm, or the cycloplegia, may be one, or both sided, may be equal or of varying degrees. Associated with cycloplegia is seen a paralysis of convergence, in which case the patient gets double vision, as well as blurred vision, at near points. Spasmodic contraction of the pupil, or spastic myosis, has been recorded in a few instances, but according to de Schweinitz, is probably one of the rarer ocular manifestations of hysteria; on the other hand, hysterical mydriasis is one of the more frequent symptoms. This may be monolateral or bilateral, and is particularly apt to occur with cycloplegia and paralysis of convergence, though instances of its independent occurrence are numerous. Again, there may be alternating mydriasis and myosis, and according to Lagovides and Blok, either of these may occur intermittently, with normal sized pupil in the interval, and in all these cases the pupil will be found to react to strong light stimulus. Paradoxical pupil reaction is a symptom of rather frequent occurrence. Binswanger believes that this "should be regarded

chiefly as an expression of a pathological perversion by virtue of which psychical processes are more easily transmitted to the movement of the pupil than under normal condition." By paradoxical pupil reaction is understood, that instead of obtaining a contraction of the pupil by light stimulus, the reverse takes place, i. e., the pupil dilates in the light, and contracts in the dark. Another abnormal condition of the pupil seen in hysteria is what is known as exaggerated hippus. Now when the normal pupil is observed under uniform moderate illumination, it does not assume and remain at a uniform size, but is almost constantly varying, not greatly, but moderately dilating and contracting. This condition is known as hippus, and is a normal condition in young and middle life; but in the hysterical it is seen to make fairly wide excursions, so much so, as to be quite noticeable to the casual observer. This condition has also been observed in certain forms of insanity, but this fact would not be likely to confuse the diagnosis.

UNCLASSIFIED VISUAL DISTURBANCES.

In addition to the above, there are a certain number of unclassified symptoms which deserve notice, among which is a central scotoma. Now as this is an almost constant sign of toxic amblyopia, one should be on his guard, particularly when occurring in a female, in the absence of any history of toxic influence. A case of this variety from my own records, was a girl of eighteen. She had the central scotoma, the loss of central color vision, while the peripheral field for color and form was not greatly affected. The condition was binocular, and but for the lack of characteristic fundus changes, was a complete picture of toxic amblyopia. In this case, no cause for toxemia could be found; and the usual remedies for toxic amblyopia had little effect, but she did recover rapidly under the use of galvanism lo-

cally. There are some peculiarities in reference to the color *red*, in the hysteric, which do not pertain to other colors. In the so-called inversion of the color fields, instead of finding the limits of this color between the blue and the green, it is found outside of both. In the contraction of the color fields, it has the largest, as a rule, to the last, and it may be found outside the white, and often the last to disappear in the achromatopsia of this condition. It is frequently the first to appear on the return of color vision, though I have in mind a single case in which the first color seen after a period of achromatopsia, was pale green. In a certain number of cases tested with the electric light of a photometer, in a portion of the field where the white light was not seen, a superimposed red glass brought out a luminous impression; in some of the cases it was red, but often it was not, but simply an impression of some object in the field. It would appear, therefore, that red might be considered the favorite color of the hysterical, though there are a few recorded cases in which red has produced painful impressions, in fact, a form of chromatophobia. In many cases of hysteria, the symptom. monocular polyopia, is one of the most interesting. Certain cases in this condition get double vision, and others three objects are seen with one eye. This is not a symptom of which the patient is likely to complain, for with binocular vision, these multiple images do not appear prominent. In searching for this symptom, as in all other examinations of the hysterical, one must avoid any question which is likely to be suggestive to the patient, and he should not ask whether he sees more than one test object, but rather to describe the appearance of the object seen. In these cases there will be a point in his line of vision where the object—and Paranaud recommends a small object

like a match—will be found to be seen single, but approached or receded from this point, will appear double. Now if the object is brought nearer, and a plus lens used, the object is seen single at once; if receded from the point of single vision, a minus lens will have the same effect. Inasmuch as these cases are always seen with cramp of the ciliary muscle, and as a rule, with spastic convergence, it is believed by Paranaud that the polyopia is caused by irregular contraction of the ciliary muscle upon the various sectors of the lens, resulting in the projection upon the retina of two, and sometimes three, images. However, there is one case on record, reported by Roder, which Paranaud quotes, in which the double vision continued under the full effect of a cycloplegic, and was considered by the reporter as being caused by cortical disturbance. Another symptom brought out by Paranaud some years since, and which he called micro-megalopsia, is one in which the apparent size of the object, when brought near the eye, looks magnified, but when withdrawn from the eye, rapidly becomes smaller, till its apparent size is much less than it should be, when seen at a given distance, i. e., the individual realizes that the object, a pencil, for example, appears larger or smaller than it should be at the distance at which it is observed. The lachryma apparatus also comes in for its share of disturbance in certain cases of hysteria. This, however, does not include the paroxysms of weeping seen in the condition, but appears to be simply an abnormal lachrymal flow without any other apparent emotional disturbance.

SUMMARY.

It is not the intention of the writer to discuss all of the ophthalmic evidences of hysteria in this communication, but only those which should be borne in mind in a suspicious case, or in cases in which there is a question in the mind of the diagnostician as to

which of two or more conditions he has to deal. The symptoms which I would especially urge to be kept in mind are, first, the anesthesias, manifested by loss of sensation in the eyelids, the conjunctiva, and the cornea, by concentric limitation of the field for light and color, by amblyopia, achromatopsia and the so-called inversion of the color fields. Next I would place the disturbances of accommodation and pupil reaction, including the approaching and fixation of the far and near points. This, together with spastic convergence and they are frequently seen in conjunction, may be considered pathognomonic of this condition; while cycloplegia, with or without mydriasis, in the absence of some known cause, is an important sign. While the other more

or less numerous symptoms found in this condition are valuable, the above well looked for, and found, will decide the diagnosis in the vast majority of cases. I said well looked for, for the reason that many of the symptoms would never be mentioned or complained of by the patient, were they not sought for by the medical attendant. As stated early in this article, the marvelous way in which this condition is capable of copying other diseases, renders it highly important that the diagnostician should be ever on the alert, and when this condition is suspected, settle the matter as soon as possible, and avoid embarrassing complications, for his own sake, as well as the object of his solicitations.

610 Pacific Mutual Bldg.

GONORRHOEAL OPHTHALMIA.

BY M. MORGAN CLOUD, A.M., M.D., LOS ANGELES, CAPTAIN, MEDICAL CORPS, U. S. ARMY, RETIRED.

The following case will be of interest owing to its great virulence and prompt recovery under what appears to the writer as a scientific treatment in cases of this character.

A. C. J., age 17 years; student; native of Kansas; patient noticed a slight irritation of the left eye on November 27, which had developed into a marked conjunctivitis on the 28th, when his mother called me by telephone and informed me that she had just sent her son down to my office as there was some trouble with one of his eyes.

On arrival at my office there was considerable swelling of the left eye, with some discharge, and I suspected gonorrhoeal ophthalmia. It was quite late in the afternoon and I prescribed a 25 per cent. solution of argyrol and sent him home with instructions to report immediately should the case become greatly aggravated, and to report at any rate early the next morning.

A smear had been taken from the discharge before the patient left the office. This was fixed and stained with methylene blue and examined for gonococci. After some time gonococci were found outside the cells, and on further examination an abundance of gonococci, both intracellular and extracellular, were found. Being unable to reach the patient that night, I waited till the next morning, when he reported very promptly.

The eye was now greatly swollen with a profuse discharge which was watery in character; there was great chemosis, the ocular conjunctiva rising about four millimetres above the cornea; the conjunctiva was very red, greatly swollen and accompanied by considerable pain.

The patient was taken immediately to the hospital and was put to bed with a special nurse in attendance.

The following treatment was scrupulously carried out:

The eye was flushed three times a day with a solution of potassium permanganate, 1 in 5000. This is a good antiseptic, and also is a great oxidizing agent, and therefore destroys any organic matter that may be present and leaves the eye in a clean condition. One drop of a four-grain to the ounce solution of atropine sulphate was dropped into the eye three times a day. The atropine preserves the nutrition of the cornea, and also puts the eye at rest by its mydriatic effect. The eye was flushed every half hour with a saturated solution of boric acid. This keeps the eye clean and prevents the bacteria and their toxins from coming in contact with the cornea. Heat was applied to the lids every hour in the following manner: A basin of hot water was kept hot by pouring in hot water from a pitcher as often as required; into this small pieces of lint were dipped and applied to the lids and changed every fifteen seconds. This was applied for fifteen minutes, being repeated every two hours. In this way the poultice effect of the heat, which would be injurious, was avoided; while the blood vessels and lymphatics were stimulated, thus assisting in keeping up the nutrition of the cornea. It is usually advised to apply cold in these cases, especially if the discharge is thick; but in cases with a watery discharge like this one, the hot applications are certainly the better, as cold would probably be disastrous to the nutrition of the cornea. Last and best of all, two or three drops of a solution of argyrol of a strength of 50 per cent. was dropped into the eye every four hours. This had a wonderful effect on the disease and seemed to control it in a short time. The sound eye was protected in the following manner: A watch crystal was applied over the eye by sticking plaster which was attached to the

bridge of the nose, the inner third of the brow, and to about one-third of the circumference of the watch crystal. This left the eye ventilated and protected it at the same time. The right eye was somewhat red at this time, and I ordered that some of the argyrol solution be dropped into this eye. The redness of the right eye subsided very quickly, but whether it had been infected it was not possible to say.

December 1st. The affected eye is more swollen than the day before. The discharge is becoming creamy. There is great chemosis, the ocular conjunctiva projecting about 6 millimetres above the cornea externally. The same treatment was continued and three grains of quinine every four hours was ordered. The quinine was given to cause an increase of leucocytosis, and thus assist in destroying the bacteria.

December 2nd. There is a great improvement in the eye this morning. The swelling is much diminished and the pain has decreased to a considerable degree. The cornea is not affected. Treatment continued.

December 3rd. The condition of the eye is about the same as on the previous day. There is a copious discharge of creamy pus. The cornea is not affected. Treatment is continued.

December 4th. The condition of the eye is about the same. The cornea is still in good condition. No change in treatment.

December 5th. The eye is improved very much. The swelling and chemosis have diminished. The cornea is clear. No change in treatment.

December 6th. The condition continues to improve.

December 7th. The condition continues to improve.

December 8th. Chemosis has disappeared; ocular conjunctiva is clearing nicely. Quinine is discontinued. Other treatment continued.

December 9th. Patient is allowed to get up and the special nurse is discontinued. The argyrol is changed to a 25-per-cent. solution.

The patient made an uneventful recovery within five weeks from the time he went into the hospital. Summary:

There was no question as to the diagnosis, the gonococci being abundant. Fifty-per-cent. solution of argyrol is an excellent treatment in these cases, as it is equally as efficacious as silver nitrate, and can be dropped into the eye, which is worth considering where the lids are greatly swollen. It is not painful like silver nitrate, and does not injure the cornea like silver nitrate. All these cases should be treated in the hospital where they can be properly cared for and kept from infecting others.

It is of great importance to look after the nutrition of the cornea in these cases by the proper application of heat, cleansing and the application of atropine.

There was a history of gonorrhoea four months previous in this case, but there had been no apparent discharge for some weeks when his eye became infected.

412 Grant Building.

CALOMEL OINTMENT PREVENTS INFECTION.

Professors Metchnikoff and Roux have lately put forward the view that calomel ointment (10 grains to 30 of lanolin) can prevent the onset of syphilis, if well rubbed into the site of inoculation. On February 1, 1906, Professor Metchnikoff inoculated Dr. Paul Maisonneuve in two places on the corona with the virus taken from the chancres of two different patients. An hour after the inoculation inunction of calomel ointment was performed for five minutes. Control inoculations on five monkeys were made at the same time. No trace of any syphilitic infection could be found in the case of M. Maisonneuve

when subsequently examined at various intervals. One monkey died from pneumonia before the disease could have had time to manifest itself. Two developed typical primary lesions. Another monkey which had been treated exactly in the same way as the author remained immune, but in the case of the fifth monkey the inunction of the calomel ointment was postponed till twenty hours after inoculation. This animal developed syphilitic lesions.

Objection to these results has been taken by Professor Neisser, of Breslau, who states that he has met with frequent failures from the use of calomel ointment one hour after inoculation. Metchnikoff accounts for these failures by the fact that the inoculations were made too deeply. He holds that the abrasion, which serves as the port of entry, is dermoepidermal.

The French military authorities have, indeed, adopted the results of these investigations, and a recently issued circular on the prophylaxis of venereal disease orders the issue of 5 grammes of calomel ointment to all the men.—*Folia Therapeutica*, October, 1908.

CAUTIONARY FACTS.

1. Drugs by the rectum or vagina should be given in three times the dose by the mouth.

2. Drugs by the hypodermic method should be given in one-sixth the dose by the mouth.

3. Be cautious in giving atropia to flaxen-haired, light-complexioned, nervous women.

4. Be cautious of the use of morphia subcutaneously after opiates or morphia have been given by the mouth or rectum.

5. Chloral hydrate should be exhibited with great care.

6. Remember that children are especially susceptible to the narcotic action of opium and its alkaloids.

SOUTHERN CALIFORNIA PRACTITIONER

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Assistant Editors.

DR. H. BERT ELLIS, DR. GEO. L. COLE and DR. W. JARVIS BARLOW,
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EDITORIAL

A CHANGE IN AFFILIATION.

The affiliation of the College of Medicine, the University of Southern California, with the University of California has now been consummated. The physicians who founded this medical college, of whom the leading spirit is Dr. Joseph P. Widney, the first Dean, and the physicians who have become actively interested in its welfare during later years, of whom the leading spirit is Dr. W. Jarvis Barlow, the present Dean, have done a noble work in bringing this institution to its present respectable efficiency.

The founders have devoted time and money for a quarter of century and those who have joined the staff later, for their proportional time, have done as much.

This has been an unselfish effort to maintain the standard of medical education in Southern California and to

assist in making Los Angeles—the metropolis of the Pacific Southwest—an educational center.

This college was one of the very first to require a three years course and then again it was right in the van when a four years course was adopted.

Time passed, the maintenance of a medical college became more and more expensive, and the University of Southern California, with which it was affiliated, was obliged to use all the income of its endowment for the support of its College of Liberal Arts.

A committee, consisting of Dr. W. Jarvis Barlow, Dr. H. Bert Ellis, Dr. H. G. Brainerd and Dr. Granville MacGowan, met and decided that the best plan to perpetuate the college as a high class educational institution would be to have it made an affiliated branch of the University of California. In pursuance of this idea this committee, increased

by the addition of Dr. Joseph P. Widney, the first Dean of the College, went to Berkeley to present the plan to President Benjamin Ide Wheeler and the Board of Regents of the University of California. President Wheeler took great interest in the proposition, but said the movement must first receive the indorsement of President Bovard and the trustees of the University of Southern California, as he would take no step that would mar the happy relations that had always existed between the two institutions. Drs. Widney, Brainerd, Barlow and MacGowan each made a brief presentation of the plan to the Board of Regents who listened with deep interest. President Wheeler, Dean Barlow and the attorney for the Board of Regents then drew up a tentative plan, which provided:

1st. That nothing must be done that would destroy the *entente cordiale* between the University of California and the University of Southern California.

2nd. That all property used by the Medical College of the University of Southern California must be deeded to the University of California free from all debt, and that the College of Medicine should take care of itself financially for two years from July 1, 1909, without help from the University of California.

It was also agreed that: In the event that the University of California should ever cease to conduct a medical college in Los Angeles, this property shall revert to the Los Angeles College Clinic Association.

On returning to Los Angeles Doctor Barlow presented the matter to President Bovard and the Board of Trustees

of the University of Southern California. With that broad-mindedness which has always characterized their attitude towards the medical department they agreed to the sequestration of the Medical College and bade that department Godspeed in its new relations. Dr. Barlow then presented the necessity of paying a mortgage of \$20,000, that was the only lien on the college property, to Mr. Jackson A. Graves, vice-president and manager of the Farmers and Merchants National Bank of Los Angeles. Mr. Graves, with that clear-sighted wisdom and promptness of decision for which he is noted, immediately saw the force of Dr. Barlow's statement and said he would give the \$20,000 needed in memory of his son Selwyn Emmett Graves, who was completing his senior year in the college at the time of his death.

There was in addition to this mortgage of \$20,000 a note of \$2,000, which several members of the faculty personally united in paying.

This matter being settled, Dr. Barlow attended another meeting of the Board of Regents at Berkeley, when he demonstrated that the Medical College was ready to comply with all the requirements. The final papers were ordered prepared and signed.

This closed one of the most important events in the educational history of Southern California. It also brings the University of California closer to us of the South.

We believe it will prove of advantage to the University of California. We can now hear its heart beat. It pulsates with red blood. It is not simply a Berkeley institution, a Los Angeles in-

stitution or a San Francisco institution; it is a great CALIFORNIA University.

With that broad outlook on humanity, for which the administration of President Wheeler has a reputation that is co-extant with civilization itself, the University of California does not necessarily follow precedents, but it creates examples that will be followed with pride for ages yet to come.

WILFRED T. GRENFELL, M.D.

We are favored in so many ways throughout our section of Southern California and so constantly that we do not hesitate to tell it to others. At this time of year are added to our full days the visits of distinguished men who bring us new thoughts and bright hopes for a larger and better life. One, a colleague of international reputation, has unselfishly accomplished such great work for mankind through his medical training that those who were fortunate enough to have met or heard him speak have felt that he made each of his hearers appreciate the importance of serving others to find real happiness or satisfaction. This "patron saint" of Labrador, Dr. Wilfred T. Grenfell, through his words and greater deeds is an inspiration to every person to faithfully do one's duty in his calling and makes everyone feel that the little he may have done for others has been worth while.

Dr. Grenfell, a graduate of Queen's College, Oxford, a member of the Royal College of Surgeons, is a most modest, simple, earnest and unselfish physician, with a strong, brave, honest and deeply religious nature. Only by such characteristics could he have accomplished

his great missionary medical work among the deep sea fishermen of the north. By living with these men month after month, enduring all kinds of hardships, sharing their sorrows and being their loyal friend, he has healed their bodies and minds and made for thousands wholesome lives and homes. His great love of the sea and the fact that practically nothing was being done to save the men and families of the deep sea fisheries, drove this great man in that path to give his life to his fellow-men.

One might wish to gain more of the spirit of this physician by reading something from his pen: "The Harvest of the Sea," published by Fleming Revell Co.; "A Man's Faith," the Pilgrim Press. On a sixty-mile trip to a sick boy, "A Voyage on the Pan of Ice" is as much of a miracle as can be found. The leading universities of the East have had inspiration from this man, who now goes north to give a message to our own State University and to Stanford, then to his home and work again on the coast of Labrador. We are grateful to this man for his help and inspiration and wish him Godspeed.

W. JARVIS BARLOW.

THE ANNUAL MEETING OF THE ARIZONA MEDICAL ASSOCIATION.

The next annual session of the Arizona Medical Association will be held at Prescott, May 19 and 20, 1909.

Several prominent medical men from other states will be present and deliver addresses. A Surgical Clinic by a well-known surgeon will be a feature of the meeting.

For the first time in the history of the Association a House of Delegates will be organized; and the Council will hold daily meetings during the session.

All county societies should be represented in the House of Delegates at all its meetings, as a revision of certain of the by-laws and other important legislative work will be undertaken. Besides, every county society should see that its secretary attends the annual session of the Territorial Association. The county secretaries are really the most important officers in the whole organization of the medical profession of the United States. On them especially, depends in a large measure the success or failure of county medical societies—the units of the medical body politic.

If the county secretaries are to maintain their interest and enthusiasm in society matters it is very essential that they meet with other county secretaries, and the profession generally, at the annual meetings of the State and Territorial Association. In the not-distant future a society of county secretaries might be organized, and meet during the annual session of the Association. County societies might well pay the whole or part of the expenses of their secretaries, to these meetings.

The different county secretaries are strongly urged to make a systematic effort to have every licensed physician in their several counties a member of their respective societies before next May.

The secretary of the Arizona Medical Association has been trying to have county societies organized in Graham and Gila counties, but so far without

success. The medical men of these counties are especially requested to attend this meeting of the Association, for we are convinced that, if they would do so, and see the benefits of medical organization in other counties, they would at once organize societies in their own counties.

A very cordial invitation is extended to every licensed medical practitioner in Arizona to attend this meeting of the Association and read a paper. Don't say you can't afford the time! In reality you can't afford not to take the time. This is going to be a very successful meeting and you will miss something good if you do not attend.

J. W. F.

GRENFELL AND TREVES.

The far-famed Dr. Wilfred T. Grenfell has been spending a week in Pasadena and Los Angeles. He has filled the largest auditoriums in these two cities with people who listened to his simple and modest story of his work among the fishermen of Labrador. He has revolutionized life in that bleak land where in winter the population is 6,000 and in summer 35,000.

The profession of Southern California were charmed with his delightful, unassuming manner and his intensely interesting conversation. He was the guest of honor at a dinner in Pasadena where fifty doctors broke bread with him, while in Los Angeles Dr. and Mrs. W. Jarvis Barlow entertained him at their home.

Putnam's Magazine for February contains a most interesting character sketch by Dr. Grenfell of "Sir Frederick

Treves, a surgeon as well as a man of genius." This article gives us a new and intimate knowledge of King Edward's personal surgeon, as the following extracts show:

"Sir Frederick had his own way to make, without any financial backing, and only a few dollars to fall back on he was confident enough to take a house in Wimpole Street, the haunt of the greatest in the profession. For years it was said that the light of the London Hospital never went out in Wimpole Street. This, being interpreted, meant that other members of the staff of the hospital had not finished burning the midnight oil before Frederick Treves was out of bed and beginning his day's work. A restless nature and the vagabond life I have myself led has kept me always an early riser. Yet through all the times I have enjoyed the hospitality of the quaint house in that haunt of doctors, I have never yet crept down early without finding that Sir Frederick had been up and done good work while I lay a-snoozing. Four a.m. has seen him at work day after day, summer and winter, the simple preparations necessary to render it possible being made in a few minutes by himself. At seven o'clock the flannels and sweater, which served just as well for intellectual work as physical, were doffed. A cold bath and a light breakfast at 7:30, and then the more conventional garments and the operative work at his private hospital; then away to the lecture-room and public. A light luncheon at home, private visiting and ward work, and then dinner at seven, and the evening always with his family. While at work, he

worked indefatigably. But to be able to work—i. e., to do work that is satisfactory—no man ever believed more in play. I think nothing surprised me more, when I first learnt it, than that a man so sought after could actually throw everything aside and leave London regularly for three months every year. Early to bed, early to rise, long and absolute holidays, and at all times the simplest of lives, have gone a long way as adjuncts of the original personality, to produce the Sir Frederick Treves, Bart., M.D., G.C.V.O., C.B., F.R.C.S., LL.D., Sergeant-Surgeon to the King, etc., of today. Today Sir Frederick is a man whose advice counts more with his sovereign than probably that of any living man, a man who is exercising invaluable influence in a thousand beneficent ways in reforming abuses that have become sacred from age."

THE LOS ANGELES DEPARTMENT OF THE COLLEGE OF MEDICINE OF THE UNIVERSITY OF CALIFORNIA.

The College of Medicine of the University of Southern California now takes the above title and becomes affiliated with the University of California.

The standard of admission will be raised. As the literature is out for 1909, applicants for matriculation next autumn will be admitted on presenting credentials showing graduation from a four years high school but, beginning with 1910, each applicant must present credentials showing at least two years in a College of Liberal Arts.

Beginning with next August, 1909, the Freshman year will be given at Berkeley, and beginning with the fall of 1910 both Freshman and Sophomore years will be given at Berkeley; and from that date, 1910, the Los Angeles College of Medicine will only give the Junior and Senior years.

Persons matriculating during 1909, who have not had the equivalent of two years in a College of Liberal Arts must matriculate in Los Angeles at the office of the college, 737 Buena Vista Street. Applicants having credentials showing two years in a College of Liberal Arts may matriculate either in Berkeley or Los Angeles.

The following resolutions are of interest in connection with the transfer of the College of Medicine of the University of Southern California to the State University, and the gift of Mr. J. A. Graves of \$20,000 to pay a mortgage of that amount existing on the property.

RESOLUTIONS ADOPTED AT THE MEETING
OF THE FACULTY OF THE COLLEGE OF
MEDICINE, UNIVERSITY OF SOUTHERN
CALIFORNIA, ON FEBRUARY 13, 1909.

WHEREAS, The Faculty of the College of Medicine and the Board of Trustees and different departments of the University of Southern California have for twenty-four years harmoniously and successfully worked together in their efforts to give to Southern California a medical college of highest standing;

AND WHEREAS, The whole trend of modern medical education, as well as the public health interests of California, have made it desirable that the Los Angeles College of Medicine, U. S. C., should identify itself as a department of the State University, so that both the interests of medical education and of public health throughout the state might be the better conserved;

NOW, THEREFORE BE IT RESOLVED, That in bringing about the consolidation of the College of Medicine with the State University of California, the Faculty of the College of Medicine express to the Board of Trustees of the University of Southern California, its appreciation of the generous manner in which that Board co-operated with the Faculty, in bringing about such union; and further, that the Faculty of the College of Medicine assures the Board of Trustees and the various faculties of the University of Southern California of its continued interest and best wishes for the success of that University.

W. JARVIS BARLOW, Dean.

GEO. H. KRESS, Secretary.

THE MEDICAL COLLEGE TO MR. GRAVES.

Los Angeles, Cal.,
Feb. 19th, 1909.

J. A. Graves, Esq.

DEAR SIR:—In accepting your gift of \$20,000 to the Los Angeles Medical Department of the University of California we wish to convey to you our sincere thanks and gratitude. We believe that in so doing you have erected a most fitting monument to the memory of your son, whose ability, industry and character we had hoped would have placed him in the front rank of his profession as it had already done among his college mates.

In the practical side of his studies your son was most interested, and your gift enables this college to continue its gratuitous treatment of the poor, empowers its profession to instruct the students of the future in a much more satisfactory way, and enables the institution to enter into its wider field untrammelled.

Although your son has passed beyond, through your tender love as his father, his spirit will for all time be at work in a most practical and efficient way in the relief of human suffering

and the furtherance of professional skill among the students.

In acknowledgment of this service and in memory of so talented and beloved a young man, the faculty of the Medical College has recommended that the Clinical Building of this institution shall be called "The Selwyn Emmett Graves Memorial Free Dispensary."

JOSEPH KURTZ,
H. G. BRAINERD,
H. BERT ELLIS,
Committee.

REPLY OF MR. GRAVES.

Los Angeles, Cal.,
Feb. 26, 1909.

*Dr. Joseph Kurtz, Dr. H. G. Brainerd
and Dr. H. Bert Ellis, Los Angeles,
Cal.*

GENTLEMEN:—I beg to acknowledge your kind favor of the 15th inst. I trust that what I have done for the Medical College will not only prove a lasting memorial to my son, but be a great benefit to suffering humanity through all the days yet to come.

With kindest regards, believe me

Very truly yours,

J. A. GRAVES.

THE COLLEGE CLINIC ASSOCIATION TO
MR. GRAVES.

Mr. Jackson A. Graves.

DEAR SIR:—At the regular meeting of the Board of Directors of the Los Angeles College Clinic Association held in Los Angeles, Feb. 23rd., 1909, the following preamble and resolutions were adopted and ordered spread upon the Minutes of the Association, and a copy of the same ordered to be engrossed and presented to yourself:

WHEREAS, The love and affection of a father and a broad interest in his

fellow-man has inspired Jackson A. Graves to assume the payment of a debt of twenty thousand dollars incurred by this Association for the erection and equipment of a free dispensary building for the cure and relief of the indigent sick of Los Angeles and the better instruction of medical students; and he by so doing has aided and facilitated the establishment of a co-ordinate branch of the Medical Department of the University of California in the City of Los Angeles—thereby greatly advancing the cause of higher medical education in the State of California. And all this through and by cause of the fond memory of a son who had devoted almost four years of his life to generous, thoughtful work in this dispensary, while at the same time fitting himself for a brilliant career in medicine, these beneficent plans being suddenly and tragically subverted by his untimely death.

THEREFORE BE IT RESOLVED, That this building in memoriam be called after and hereby is and shall be known as the Selwyn Emmett Graves Memorial Free Dispensary, and that a tablet upon which these facts are inscribed be erected within and made a part of this building; and further

BE IT RESOLVED, That the Board of Trustees of this Association acting for the Regents of the University of California accept the Selwyn Emmett Graves Memorial Dispensary building at the hands of Jackson A. Graves and hereby express their gratitude for this thoughtful, gracious and timely act of charity and educational assistance.

GRANVILLE MACGOWAN,
W. LEMOYNE WILLS,
WALTER LINDLEY,
Committee.

EDITORIAL NOTES

More women die of cancer than of tuberculosis.

Dr. J. M. Pearson will open offices in Camp Verde, Arizona.

Chicago has sent 5,000 cats to Japan with which to fight plague-infected rats.

Dr. C. L. Lowman of Los Angeles has located in the Bumiller Building, 430 South Broadway.

Dr. John Adams of Flagstaff has been spending several weeks in Cleveland, Ohio, doing post-graduate work.

Dr. Harry T. Southworth has been appointed City Health Officer of Prescott, Arizona.

Dr. Ross Moore, Los Angeles, is now located in Fay Building, corner Third and Hill streets.

Dr. Thos. J. Murray, a leading surgeon of Butte, Montana, has been gathering oranges in Los Angeles.

Dr. Stephen L. Richards of Salt Lake City has been taking a vacation in Los Angeles.

Dr. J. E. Jennison, a well known surgeon of De Lamar, Nevada, has been spending a few days in Los Angeles.

Dr. Frederick J. Walter, formerly medical director at Mudlavia, Indiana, has located in Roswell, New Mexico.

Dr. H. M. Robertson has resigned as Riverside County physician, and Drs. Parker and Roblee have been chosen.

Dr. W. T. Lungerhausen has resigned his position as medical director of the Arrowhead Hot Springs.

Vera Cruz, Mexico, in 1908 had 872 births and 2,116 deaths. Of the deaths 471 were due to tuberculosis.

Dr. Wm. K. Robinson of Goldfield, Nevada, was recently called professionally to Los Angeles.

Dr. Elizabeth Kearney of Los Angeles takes a vacation now and then visiting her ranch five miles south of Indio.

Dr. H. W. Levengood of Jerome, Arizona, has removed to Southern California, where he will practice in the future.

Dr. John M. Dunsmoor was the guest of honor recently at a banquet given by the internes of the Los Angeles County Hospital.

Dr. Philip Newmark of Los Angeles, who has been twelve years in the Bradbury building, has removed his offices to the Security building.

Dr. C. C. Ledyard, formerly of Rialto, has accepted the position of one of the staff at Dr. McBride's Sanitarium (Las Encinas), Pasadena.

Dr. J. R. Cunningham has been elected county physician at Tonopah, Nevada; Dr. E. K. Smith, at Round Mountain, Nevada, and Dr. E. S. Grigsby at Rhyolite, Nevada.

Dr. H. Wilson Levengood, formerly of Jerome, Arizona, has located in San Bernardino, California, where he is devoting himself to internal medicine.

Dr. Ira E. Brown has severed his connection with the Congress Hospital and resumed charge of the medical work at Kelvin. Dr. P. T. Daily has taken charge of the hospital at Congress.

Dr. W. A. Edwards of Los Angeles was the house guest of his brother-in-law, President Wm. H. Taft, at the White House for the week beginning with Inauguration Day.

Dr. A. J. Rosenberry, who practiced during the past ten years in Oak Park, Illinois, has purchased the office equipment of Dr. H. W. Levengood of Jerome, Arizona, where he will practice in the future.

It is rumored that Dr. John Trueworthy will receive a fee of \$50,000 from the estate of the late E. J. Baldwin of Arcadia for the professional services rendered by him.

Dr. Mark A. Rodgers of Tucson has opened a modern and well-equipped surgical hospital in his building on South Stone avenue. A training school for nurses is to be conducted in connection with the hospital.

Dr. Ross Moore, until recently associated with Dr. H. G. Brainerd, has announced his removal to 304 Fay Building, and that he will hereafter confine his work to diseases of the mind and nervous system.

Dr. J. R. Crutcher, whose offices are in the Tennessee Trust Building, Memphis, has been enjoying a vacation in Los Angeles. Dr. Crutcher graduated from the Medical Department of Vanderbilt University, Class of 1882.

M. Evangeline Jordan, D.D.S., of Los Angeles, whose dental work is limited to children and pregnant women, has established her permanent offices in Suite 712, Wright & Callender Building, corner Fourth and Hill streets.

Dr. R. H. Johnson, chief surgeon of the American Fuel Co. Hospital, Gallup, New Mexico, has been spending a week in Los Angeles. Dr. Johnson is collecting some interesting data showing that pneumonia is quite contagious.

Dr. Siegfried Lilianstein, alienist from Nauheim, Germany, spent several days in Los Angeles during February and was the guest of honor at a dinner given at the California Club by Dr. John R. Haynes.

Dr. J. K. McDonnel of Fossil Creek recently spent a well-earned holiday in Phoenix and other Southern Arizona towns. During his absence Dr. J. M. Pearson, a recent arrival from Washington, D. C., attended to Dr. McDonnel's practice.

Prof. Benjamin Marshall Davis of Miami University, Oxford, Ohio, says: "The modern Greeks are failing as a nation because of their reluctance to modify an education which embodies the ideals of the old Greek civilization. The whole trend is to develop a literary and professional class far in excess of the needs of the nation."

Dr. E. A. Ealy, who practiced for a considerable number of years at Kingman, Arizona, has removed to Escondido, California. Dr. Ealy has been for years one of the most regular attendants at the meeting of the Arizona Medical Association, and constituted one of "the old guards" of that Association. He carries the best wishes of his Arizona confreres to his new field of work.

In speaking editorially of the transfer of the Los Angeles Medical College to the University of California, we mentioned a committee who deserve great credit, but of course Dr. W. Jarvis Barlow did the hard detail work. He made several trips to Berkeley and displayed ability, wisdom and a spirit of immolation of self that is most admirable.

The annual meeting of the Cochise County Medical Society was held at Bisbee, Arizona, February 6th, and the following officers were elected: President, Dr. Charles F. Hawley, Bisbee; first vice-president, Dr. Ernest A. Wilkinson, Bisbee; second vice-president, Dr. E. W. Adamson, Douglas; third vice-president, Dr. Robert Ferguson, Bisbee; secretary-treasurer, Dr. Frederick R. Williams, Bisbee.

The Santa Barbara County Medical Society has elected the following officers for 1909: Dr. E. A. Dial, president; Dr. Rexwald Brown, vice-president; Dr. J. W. Graham of Lompoc and Dr. R. W. Hill of Carpinteria, vice-presidents at large, and Dr. William T. Barry, secretary and treasurer. Drs. Barry and Brown were elected as delegates to the meeting in San Jose in

April of the California State Medical Society.

The Arizona Legislature, early in the session, passed an act enabling first-class counties to dispense with the contract system in the conduct of the County Hospital and Poor Farms. Under this act, the Board of Supervisors, in these counties, have the authority to appoint a superintendent, under a salary, who conducts the hospital and poor farm at the expense of the county. This certainly is a great improvement over the old contract system and promises to work many beneficial changes.

Dr. Thomas Van Valzah Parker, captain and assistant surgeon Pacific branch N. H. D. V. S., has been appointed attending physician of the Southern California Winter Sanatorium for Patients of Moderate Means, at Palm Springs, Cal., and has entered upon the duties of that office. Dr. Parker was licensed to practice medicine in California in 1897. He was appointed assistant surgeon Pacific branch N. H. D. V. S. in 1898, and has been on duty at the Soldiers' Home ever since.

The following were elected members of the Los Angeles County Medical Association, February 24th: Drs. F. D. Fairchild, 4605 Central Ave.; Edward M. Cahen, Los Angeles County Hospital; John Allen Balsley, 1447 Eleventh St., Santa Monica; Ralph H. Newcomb, 44 S. Marengo Ave., Pasadena; R. G. Whitlock, 2828 E. Main St.; Edward D. Jones, 3146 Vermont Ave.; Prudence M. Welsh, Bixby-Heartwell Bldg., Long Beach; Elmer R. Pascoe, Los Angeles County Hospital; W. R. Manning, 213 S. Broadway, and Albert E. Bowerman, El Monte, by transfer from Fresno County Society.

The Committee on Public Policy and Legislation of the Arizona Medical Association has had a Vital Statistics bill introduced into the Legislature. The bill is closely modeled on that recom-

mended by the Census Bureau and the American Public Health Association. One of the changes made was that the Territorial Superintendent of Public Health was made Territorial Registrar of Vital Statistics. Besides, a clause was introduced making County Health Officers County Registrars of Vital Statistics. The local registrars are to be appointed by the several County Boards of Health, and are to report to the County Registrar instead of directly to the Territorial Registrar according to the plan of the Census Bureau Bill. The committee is of the opinion that these changes make the bill better adapted to the large territory and scattered population.

A loving, thoughtful father, a great financier, an able lawyer, and a generous, public-spirited citizen are some of the terms that must be used in speaking of J. A. Graves, who has just given \$20,000 to the Los Angeles Medical College of the University of California.

Besides this, Mr. Graves is a man who would have distinguished himself in literature if he had devoted himself to that field. His miscellaneous library, at his home at Alhambra, is large and well chosen and Mr. Graves is familiar with all that is best in books. In establishing free of debt the Selwyn Emmett Graves Free Dispensary, where 15,000, who are sick and poor, are treated annually without cost, Mr. Graves has perpetuated a charity that is far-reaching in its kindly benefits. Every reader of the SOUTHERN CALIFORNIA PRACTITIONER will be interested in the memorial sketch that appears in the first pages of this issue. It is a noteworthy human document. A genuine leaf from real life.

Dr. W. W. Potter, Seattle, Washington, in the *Northwest Magazine*, says. "Not long ago, at a State Medical Association meeting, the president of the society gave a lawn fete at his beautiful home. Among other things provided for his guests were intoxicating bever-

ages. The president himself acted as waiter on this occasion, urging all to partake. One of his guests (whose history of thralldom to, and escape from narcotics was well known to the president) politely declined, only to be met with the surprising retort, 'Don't be too damned good.' The following evening the local medical association gave a 'smoker' to the members of the state association, members only being invited. Here, too, intoxicating drinks were furnished in abundance, and the evident intention of the committee of entertainment was to get everyone drunk, and as speedily as possible. I regret to say that the committee succeeded admirably in the main."

The Physician and Surgeon (Ann Arbor) for February, 1909, says: "Doctor Pottenger's treatise will be welcomed by all who desire a working knowledge of the aims, technic and results of the specific treatment of tuberculosis by any of the bacterial products now on the market. After several well written chapters on the diagnosis of the disease in its various stages, the relation of human and bovine tuberculosis is discussed, the more important vaccines

and culture products described and the methods of administration for diagnostic or therapeutic purposes detailed. The result of his own wide sanatorium experience has been added to, and tabulated with extensive data from other sources. As a result, Dr. Pottenger advocates the method of hypodermic injection of minimal doses controlled by clinical observations. His observations lead him to believe that both human and bovine strains of the bacillus are present in a large proportion of pulmonary cases, and he accordingly recommends the administration of alternate courses of human and bovine vaccines. In addition there are included excellent chapters on the dietetic, home and sanatorium treatment, on climates, Bier's stasis, et cetera. The chapters are more or less independent and complete, making it an excellent volume for reference and convenient for the reader who is subject to frequent interruption. For this same purpose titles in full-faced type and marginal indices are introduced. The volume is supplied with a number of illustrations, and numerous and exhaustive tables are added."

BOOK REVIEWS

PATHOGENIC MICRO-ORGANISMS, INCLUDING BACTERIA AND PROTOZOA. A Practical Manual for Students, Physicians and Health Officers. By William H. Park, M.D., Professor of Bacteriology and Hygiene in the University and Bellevue Hospital Medical College, New York. New (third) edition, thoroughly revised and much enlarged. Octavo, 648 pages, with 176 illustrations and 5 full-page plates. Cloth, \$3.75. net. Lea & Febiger, Philadelphia and New York, 1908.

I regret that more space cannot be given to the review of this book, as to me it seems the most satisfactory of all that has been written on pathogenic bacteria and protozoa. It is valuable not alone to the special student or to him who wishes to become specially proficient in these matters, but also to the physician who like myself wishes to be

kept informed of the advances in knowledge and technique, but whose life's work does not permit him to spend long hours in the laboratory. Perhaps the most marked characteristic of this book is its individuality as it incorporates considerable original work that has been done in the research laboratory of which Dr. Park is the head, and one constantly gains the idea that the author speaks with the authority that is gained and gained alone by doing the original work one's self, and not compiling from the writings of others.

Fortunately for us who endeavor to keep *au courant*, the book is not simply

one more book added to the already oversized mass of similar works, but is a distinct and serious addition to our knowledge in certain branches of bacteriology.

This book gives a clear description of the animal organisms that may cause disease, organisms quite as important as the more familiar and more easily studied vegetable forms of life. Of course the disease bearing protozoa are more difficult to cultivate and demonstrate, but Park, perceiving this difficulty and the deficiency of many books in that respect, has prepared chapters on the protozoa that are of great value. In this way, in a single volume, all diseases caused by micro-organisms are studied.

The chapter of the bacteria of the normal intestine is a very valuable one and is followed by a still more valuable study of the colon, typhoid and dysentery bacilli, a very difficult subject well handled, about which we have little enough accurate information.

In this edition the whole subject of the protozoa has received many additional pages, and our knowledge of pathogenic protozoology is thereby greatly increased. It is a very valuable resume of the subject containing a new basis of classification.

Both the theoretical and the practical aspect of the opsonic index and its use as a basis for treatment by bacterins is discussed. A great deal of original work is here apparent, and it is a reliable guide to the various factors which influence the accuracy of the determination of the index and its significance in combating disease. Of course more evidence is still demanded, but this chapter of Park's is a great help to the elucidation of the complex problems of opsonins and specific anti-bacterial immunity, more particularly as the profession seems to be arranging itself into two hostile camps, that of Wright and many other observers, who believe in the vaccine treatment according to the

readings of the opsonic index, and the other, the toxin immunization.

Neither view as yet seems to us to tell the whole story, so at present we adopt them both. We are guided by the degree of toxin tolerance in each patient as indicated by the symptoms and general conditions, but we also take the index frequently and consider it, too, of great value. In the chapter on the bacillus tuberculosis the various tuberculins are described and their use in treatment and diagnosis, both in human beings and in cattle. It is very practical, valuable and useful, and it is the clearest statement of the today's procedures that I know of.

The book is much increased over former editions, both in the number of pages and in the plates and illustrations. It shows careful revision and rewriting, and the addition of a glossary of terms is an aid to all of us.

The book is worthy of the strongest recommendation. W. A. E.

A HANDBOOK OF SUGGESTIVE THERAPEUTICS, APPLIED HYPNOTISM, PHYSIC SCIENCE. By Henry S. Munro. M.D., Americus, Georgia. Second Edition. C. V. Mosby Medical Book and Publishing Company, St. Louis. 1908.

For a number of years Dr. Henry S. Munro has been traveling over the United States giving instructions in Suggestive Therapeutics and Hypnotism to private classes in the larger cities. Several years ago it was the reviewer's pleasure and privilege to attend one of these courses given by Dr. Munro.

At that time we were impressed with the absolute honesty and frankness of the man. We were also impressed with the fact that he was bringing before the profession, to be used in a legitimate way, a subject which ordinarily is embraced by the charlatan as a chief resource.

There is no doubt that psycho-therapy today has a stronger following along legitimate lines than it ever had before.

It is therefore with especial delight that the present volume comes to us for review. The book includes practically all that was given in the private course above referred to and much in addition. While some of the sentences are greatly involved and seemingly modeled after the commentary of Julia Caesar, and therefore require a re-reading to get at the gist of the idea conveyed, the work on the whole is much more rapidly understood than the majority of works that deal with this science. For instance in chapter 2, on "Nomenclature Defined," the following is given: "By Suggestive Therapeutics, or Psychotherapy, is meant mental influences in the treatment of disease, as applied both with or without hypnotism, with the definite understanding that any influences brought to bear upon the mind of the patient, e.g., the impressiveness of the modern static electric machine, the crudest device of the charlatan, including all such methods as are employed by Christian Scientists, osteopaths, magnetic healers, and divine healers, as well as the influence exerted in any way by the personality of the physician in words of encouragement, reasoning, persuasion, advice, etc., all come under the broad domain of Suggestive Therapeutics."

It could easily have been divided into two or three sentences and presented in a more agreeable manner.

Chapter 3. "Hypnotism Demonstrated" presents the subject so clearly that nearly any forceful person would be able to hypnotize some people if he so desires.

Father on in the work many illustrations of the value of "Suggestive Therapeutics" are given as good examples of the merit of Suggestion. They are given in such a clear and concise manner that they should be a great aid to any one desirous of using Suggestion as a means of treatment.

Heavy type is largely used through the book as a means of emphasizing, and in the humble opinion of the reviewer is sometimes overdone. Emphasis is often placed where it could just as well be omitted.

On the whole the work is a very commendable one, and the best one which we know along this line to fall into the hand of the general practitioner, and this is the purpose for which it was intended.

Dr. Munro has chosen as his subject, and his life work, apparently, a branch of therapeutics that has been largely neglected by the general profession and he has handled it masterfully without falling into the devious ways that so often accompany work along this line. It is a book that we should prize, one that we should all have in our library, and one that we predict will run through successive editions.

PATHOLOGICAL TECHNIQUE. Including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By F. B. Mallory, M.D., Associate Professor of Pathology, Harvard Medical School, and J. H. Wright, M.D., Director of the Pathological Laboratory, Massachusetts General Hospital. Fourth Revised Edition, Octave of 480 pages, Illustrated. Philadelphia and London: W. B. Saunders Company. 1908. Cloth, \$3 net. For sale by Fowler Brothers, 543 Broadway.

The fourth edition of this book has been carefully revised and corrected.

A few methods have been omitted, and a number of new ones, which have stood the test of time and trial, added. Among other improvements and additions, the following deserve mention:

In part 2 are inserted Zinsser's anaerobic method for plate-cultures and three new methods for the cultivation and differentiation of the typhoid bacillus, the ox-bile method, the medium of Endo, and the malachite green medium. The paragraphs on the micro-organism of actinomycosis have been entirely rewritten to accord with recent investigations on this subject.

In part 3 the following additions will be found: Weigert's iron hematoxylin

stain for nuclei; improvements in the methods for staining fibroglia, myoglia, and neuroglia fibriles; Wright's method for the differential staining of blood-platelets and the giant cells of the bone-marrow; Best's improved stain for glycogen; von Kossa's silver method for demonstrating lime-salts; staining methods for the *treponema pallida*; and Sir A. E. Wright's method of preparing bacterial vaccines.

The article (page 222) on "Actinomycosis" is an exceedingly clear and interesting one, bringing this interesting subject up to the present time.

With regard to diagnosis of actinomycosis, on page 226, occurs the following: "The finding of the granules in suspected pus may be facilitated by spreading the pus on a slide. The identification of the organism is made certain only when the granules have been found to present the appearance described above after crushing under a cover-glass, and after cover-glass preparations made from them and stained by Gram's method show the branching filaments."

On page 256, is given "Wright's method for Frozen Sections," with this comment: "This method has given such satisfactory results as a historical procedure, and has proved, after an exhaustive testing in practical work, to be such a saver of time, labor, skill and expense in obtaining satisfactory sections adequate for most routine purposes, that it seems destined to replace extensively the celloidin and paraffin methods."

The following quotation taken from the preface shows the scope of the work: "In the parts devoted to Bacteriology and to Pathological Histology we have not endeavored to make an exhaustive collection of methods and formulae, but rather to select those which have been found of the greatest service in practical work."

Nothing that the reviewer may say in commendation of this admirable

work could add to the place which it holds in the profession. The loyalty and honesty of the authors, together with the lucid presentation of the subjects place it foremost in all works along this line.

DISEASES OF THE DIGESTIVE CANAL (OESOPHAGUS, STOMACH AND INTESTINES). By Dr. Paul Cohnheim, Specialist in Diseases of the Stomach and Intestines in Berlin. From the second German edition, edited and translated by Dudley Fulton, M.D., Lecturer on Medicine, University of Southern California, Los Angeles. Illustrated, J. B. Lippincott Co., Philadelphia and London.

In all medicine there is no safer guide than a rational anamnesis with a careful study of the clinical picture. Let the chemical and microscopical findings come later, and then they must fit the clinical symptoms or they are to be accepted only with the greatest caution. This is one of the valuable assets of this book of Cohnheim's, and it makes it of great value to the student, the beginner in the special study of diseases of the stomach, the general practitioner and also to him who wishes to consult a book which is the concrete expression of an author of wide experience, who gives the essentially practical side of his subject not overburdened with physiological, pathological and anatomical subject matter.

Examples of the clear, concise statements found in this book are the following; many others can be found, but these were selected at random: "When the *habitus enteropticus* occurs in women who have born children, the greater curvature frequently lies below the umbilicus as much as four fingers' breadth, without, in any sense, actual dilatation of the stomach;" again, "in patients with enteroptosis the examiner can often palpate the normal pylorus, which might easily be mistaken for a tumor by the inexperienced."

The standing position for palpation of the kidney, so much thought of in America, is not mentioned in the text.

Cohnheim considers it possible to palpate the normal appendix. This will hardly be accepted by English-speaking physicians, although Cohnheim thinks that by continued experience the examiner will easily feel the normal appendix to be a cord about the size of a lead pencil and as long as the little finger. Anyone who has opened the abdomen many times will hardly accept this teaching, as applied to either normal or abnormal appendices.

We are glad to note on page 22 that an aspirator for removing the test breakfast from the stomach is never used and never recommended except to beginners, and the sooner they dispense with it the better.

The chapter on the internal chemical and microscopical examination of the stomach is one of the simplest and clearest descriptions of what many books make a very complex subject that I know of in the literature. Of course there are a number of delicate procedures for testing the absorption and secretion of the stomach and intestines that are not described in this book, but in my experience they are of little practical value, of as little value as the very delicate tests for detecting minute amounts of albumin in the urine.

In the chapter on Diseases of the Oesophagus the translator has introduced a few pages on Chronic Cardiospasm with an illustration of an ingenious cardiospasm dilator and mercurial manometer that he devised for the successful treatment of a case in a young woman.

The consideration of Diseases of the Stomach occupies 165 pages of the text and it opens correctly with an endeavor to show the reader that motility is after all the most important function of the stomach, as an individual may live and enjoy life when there is a total absence of the gastric juice, but the stomach must have the ability to expel the chyme into the duodenum in a normal manner.

Cohnheim considers (page 73) the position of the stomach, generally speaking, as unimportant as far as diagnosis is concerned. The translator like ourselves no doubt agrees with him as he has made no comments on the statement. Just here we wish to emphasize the statement that splashing sounds in the epigastrium are as a rule only evidence of a relaxation of the abdominal wall and of a considerable portion of the stomach lying in contact with the abdominal wall, they have no pathological significance, and have nothing at all to do with dilatation of the stomach, except—and here is the milk in the cocoanut—when they occur in a fasting stomach. How often do we see a mistake in diagnosis made just here.

If one would carefully and honestly follow the outline of the systematic examination of a patient suffering from a gastro-intestinal affection as detailed on page 79, fewer mistakes would be made. It is gratifying to see the error of attaching much importance to a coated tongue so tersely and correctly expressed.

Another illustration of the saneness of this book occurs on page 81, thus: "The medical attendant in treating organic stomach and intestinal diseases should not direct all his therapeutic measures against the local affection, but should at the same time treat the general condition;" again, "perhaps of all stomach disease, catarrh of the stomach is most frequently diagnosed when it does not exist. Better call it chronic dyspepsia until the correct diagnosis is made."

The chapters on acute, chronic and hyperacid gastritis, subacid and anacid gastritis and the clinical cases illustrating the diseases are very valuable indeed to the practitioner as well as to him who specializes. These diseases constitute a large proportion of the so-called stomach troubles, and the factors on which a diagnosis is based are clearly

described and the treatment is most satisfactorily given.

The important subject of ulcer of the stomach is allotted 24 pages; more would have been better, but the whole matter is so attractively presented that one feels satisfied when finished reading the chapter.

All of us Americans will endorse the translator's disagreement with the author that perforations which occur in the empty stomach may be treated expectantly; we rather feel with Fulton that if perforation of an ulcer occurs it becomes a surgical affection, and an operation is demanded as soon as possible, immediately would be ideal. ~~we~~ cannot depend on the statement that the empty stomach contains relatively few pathogenic organisms. We do not wish to give the impression that Cohnheim does not endorse the surgical treatment of ulcers of the stomach, as such is not the case; he distinctly commends it on page 123.

Cohnheim seems to have great faith in the use of milk of almond before meals, three times daily, for the prevention of recurring ulcer. The olive oil treatment has seemed more valuable in my hands.

The author believes in the existence of fissures and erosions of the mucous membrane of the stomach, just as they may occur in the mouth, lips, nose and anus, but he naively remarks that an exact diagnosis cannot be made beyond a probability.

The important matter of gastric carcinoma is very satisfactorily considered in a rather too short chapter. The author correctly says that from a clinical standpoint the findings in regard to the gastric juice are exactly those of atrophic gastritis, but again he correctly adds that in carcinoma resulting from malignant degeneration of an ulcer free HCl may be demonstrable up to the end of life. How often do we see these two correct statements disregarded, the observer waiting for the appearance of

a tumor, when in fact many cases of cancer present no palpable tumor during the life of the patient.

The four pages devoted to a diagnosis of carcinoma of the stomach before it is possible to localize the tumor by palpation are therefore very valuable, and they are here presented in a very acceptable form.

Cohnheim's dictum that the proper domain of the surgeon is carcinoma of the pylorus—which unfortunately is too often not operated on early enough, at a time when radical removal is possible, will probably meet no controversial argument, as the translator correctly adds early diagnosis and good surgery are the requisites in the treatment of cancer of the stomach.

Cohnheim has allowed six lines to the consideration of congenital hypertrophic stenosis of the pylorus, the translator has added less than sixteen, an oversight that later editions will probably correct. The article on gastrectasis, stenosis of the pylorus and gastric dilatation, with this exception, is very good.

The remainder of the section on diseases of the stomach is a full consideration of the so-called functional diseases, which are of equal interest in gastric pathology, and diseases of the stomach in connection with diseases of other organs.

The remainder of the book, from pages 237 to 346, has to do with diseases of the intestines, which are more extensive and common than those of the stomach. How correct is Cohnheim when he says that the cause of the prevalent disturbances of the bowels is the use of artificial "foods" during the first few years of childhood, and in adult life unhygienic living. While our knowledge of the individual diseases of the intestines is much less advanced than our knowledge of the stomach, it is surprising to note the mass of information that Cohnheim has compressed into this little book.

The author has taken membranous enteritis from the domain of uncertainty where it has for many years been considered as a myxo-neurosis intestinalis, and placed it in the rational category of a simple reparable superficial catarrh of the colon, a conclusion with which my recent writings are in accord, although in my earlier studies published in the *American Jour. of the Medical Sciences*, the disease was considered to have close relationship with the abdominal sympathetic nervous system and the solar plexus.

This book has again introduced the term "typhilitis" into medicine, and considers it very desirable to differentiate between typhlytis stercoratis and appendicitis. So do we.

On the following page is given diagnostic points which have generally proven practical and reliable to Cohnheim. We doubt very much if these diagnostic dictums will be accepted by the American physicians and surgeons.

The book closes with an appendix which contains a table to assist in the diagnosis without the use of the test breakfast, an outline of dietetic treatment of diseases of the stomach and intestines and of metabolism, an outline of balneotherapy, indications for hydrotherapeutic, mechanical and electrical treatments and the clinical A.B.C. of the most important disturbances of the digestive tract; finally an index which could with great propriety be made more full.

This book contains a great deal of well arranged information and is evidently the product of an orderly mind accustomed to think in a systematic manner. While its general tone is dogmatic to a degree, still it has the great advantage of clearness of diction, honesty of purpose and accomplishment.

It is distinctly a one-man book and refers little if any to the literature or the opinions of others.

It is, however, eminently safe and sane, and I feel no hesitancy whatever

in fully recommending it to student, practitioner and specialist. The privilege of reading the book in the original has not been accorded me, but from personal knowledge of the fitness of the translator I have no doubt it is a faithful transcript of the original as far as it is possible to transpose from one language to another.

WILLIAM A. EDWARDS.

PRACTICAL DIETETICS WITH REFERENCE TO DIET IN DISEASE. By Alida Frances Pattee, Graduate, Boston Normal School of Household Arts. Late Instructor in Dietetics, Bellevue Training School for Nurses, Bellevue Hospital, New York City; Special Lecturer at Bellevue, Mount Sinai Hahnemann, and the Flower Hospital Training Schools for Nurses, New York City; St. Vincent de Paul Hospital, Brockville, Ontario, Canada. Fifth edition, 12mo. cloth. 300 pages. Price, \$1.00 net. By mail, \$1.10. C. O. D. \$1.25. A. F. Pattee, Publisher. Main office, 134 So. 1st Ave., Mt. Vernon, N. Y.; New York office, 52 West 39th St., N. Y.

A work on the preparation of proper food for the sick and convalescent, giving in detail the method of preparing and administering liquid, semi-liquid and solid food. Contains the diet lists and what to avoid in various diseases; also the proper diet for infants and children as advised by leading physicians and hospitals of New York and Boston.

The Physicians' Visiting List (Lindsay & Blakiston's) for 1909 is before us. This is the fifty-eighth year of this useful publication. Its Dose-tables have been revised in accordance with the new U. S. Pharmacopoeia. The price of the regular edition is only one dollar. It is gotten up in excellent, attractive style. Address P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia.

THE CHANGING VALUES OF ENGLISH SPEECH. Cloth, \$1.25 postpaid, gilt top. Hinds, Noble & Eldredge, 31-33-35 West 15th Street, New York City.

Another book in the inimitable style of the author of "The Worth of Words." In its nineteen chapters this new book presents the many aspects of value-change as exhibited in English

speech, all set forth with that engaging facility of expression of which the author is one of those born masters who, by dint of good, patient hard work done in a cheerful mood and toned by the poetic spirit, can impart humor to simplified spelling and even into derivations can put a bead or sparkle, and can add another charm even to lucidity, and make even a dull topic glow with interest.

APPLIED SURGICAL ANATOMY, REGIONALLY PRESENTED. For the use of Students and Practitioners of Medicine. By George Woolsey, A.B., M.D., Professor of Anatomy and Clinical Surgery in Cornell University, Medical College, New York. New (second) edition, enlarged and thoroughly revised. In one very handsome octavo volume of 601 pages, with 200 illustrations in black and colors. Cloth, \$4.50, net. Lea & Febiger, Philadelphia and New York, 1908.

Anatomy is undoubtedly the most basic of all the medical sciences. It is a well-known fact, however, that the practitioner is very apt to lose interest in its study and that its isolated details do not arouse his interest.

When, however, it is presented in such an attractive manner as this book of Woolsey's and others of its class, which show the natural relationship of the anatomical structures and their practical application to the work of the physician and surgeon, it becomes a very different matter, and the task of memory is greatly lessened.

The author has been a teacher for eighteen years, and the book is the result of his knowledge of the best manner of presenting the subject. He has

chosen well from the vast aggregate of knowledge constituting the modern science of anatomy in order that the book may not become unwieldy for classroom and didactic use.

The book can with propriety be called an anatomical surgery as well as a surgical anatomy.

Of course one does not expect to see an original work on anatomy, and Woolsey has shown wise judgment in selecting from the work of other investigators that which suits the special purpose the best.

This second edition, issued shortly after the first, has been honestly revised, notably the sections on cerebral localization, cranio-cerebral topography, the abdominal viscera, some of the pelvic viscera and the spinal cord. In addition to this the volume has been enlarged by nearly one hundred pages and seventy engravings.

When reading the book one readily sees that it is the production of one who is at the same time a skilled surgeon and an accomplished anatomist, whose didactic acumen is shown in the manner in which he has compressed the difficult subject of surgical anatomy in one volume, and that volume of exceptional value.

The illustrations are clear, many of them in colors, and all are relevant to the text and add to its clearness.

One's library will be markedly improved by the possession of this very satisfactory anatomy. W. A. E.

MISCELLANEOUS

CORYDON L. FORD, M.D., LL.D.

Therapeutic Notes, one of the monthly publications of Parke, Davis & Co., has on its cover page for January a portrait of Dr. Corydon L. Ford. The editor of *Therapeutic Notes* says:

"Dr. Ford today is lovingly remembered by a host of physicians as a kindly

adviser and a great teacher. He was born of good old Puritan stock, in 1813, and at the age of 29 graduated from the Geneva Medical College; on the day of his graduation he was appointed demonstrator of anatomy in this institution, and after four years of service in this capacity he joined with Flint, Hamilton.

White and Webster in the founding of the medical college at Buffalo. In 1854 he was called to the professorship of anatomy in the University of Michigan, and here he labored continuously for forty years. Only a day or two before he was stricken by death, April 14, 1894, he had finished his one hundred and ninth course of lectures on anatomy.

"Dr. Ford gave all his time and energy to teaching; his fluency of speech and his enthusiasm for his work made his lectures veritable revelations to those who surrounded him in the class-room. "Thousands have sat at his feet—have seen him make the dry bones objects of interest; convert the shriveled muscles into volumes of information; and cause the dead to teach the living how to cure the sick." In recognition of the conspicuous part he played in the upbuilding of the medical department of the university he was honored with the degree of Doctor of Laws—an appreciation which never was better earned."

For many years Dr. Ford was professor of anatomy in the Long Island College Hospital. The writer well remembers Dr. Ford's notice to attend the final examination: "You are cordially invited to attend a brief seance in my rooms at 8 p.m. Friday. Ford." Great knowledge, deep earnestness and homely wit made his lectures very popular.

In the treatment of malarial diseases, Pettey, in a paper read before the Alumni Society of Memphis Hospital Medical College, and published in *Memphis Medical Monthly*, says that it frequently becomes a matter of importance to introduce quinine into the system by other routes than by the stomach, rectum, or even hypodermatically. The absorbents may be so deranged that they will not take it up. So long as the blood is circulating, if one of the soluble salts of quinine be dissolved in glycerine and applied to the skin it will pass into the blood, the

skin acting merely as a dialyzing membrane. He says this is essentially a chemical process, and its success does not depend upon the activity of the secretions or, in fact, of any of the vital functions except the circulation of the blood. A patient can be quinized as promptly and as thoroughly by inunction with glycerine and the soluble salts of quinine as by any other mode of administration, and it is much to be preferred to the hypodermatic method. The method almost universally employed is to mix quinine with lard or vaseline and rub the patient with it. He says this is an impossible method. He says the principles involved in the administration of any substance by inunction are that the remedy must be soluble in the medium employed, must have such chemical affinity for the blood as to induce osmotic action when applied to the skin, or have such physical properties as to admit of being forced through the skin by mechanical pressure. Many make the mistake of employing lard and vaseline with quinine, but none of the salts of quinine are soluble in lard or vaseline, and they have no chemical affinity for an alkaline watery solution like the blood, nor do crystalline substances admit of being forced through the skin mechanically. He says the muriate and bisulphate of quinine are perfectly soluble in warm glycerine in the proportion of one part of quinine to three parts of glycerine, thus making a twenty-five per cent. solution of quinine. The glycerine has perfect affinity for the blood and passes readily through the skin, carrying the quinine with it. Neither the sulphate nor bromide of quinine is soluble in glycerine, and therefore is not fit to be used in this way. He says this mode of administration of quinine is suitable for either adults or children, and in estimating the dose, allowance should be made for waste, because of contact with

clothing, and use gentle friction for a few minutes after applying the remedy. A convenient prescription he employs is quinine muriate 3 ii, glycerine (warm) 5 vi. M. ft. sol. Sig. Use 3 ii as inunction for adult.

Rose, of Valparaiso, Ind., says, in *Medical Era*, in regard to traumatic inflammations and their treatment, that when a boy in the army during the Civil War, it was his observation that soldiers, who were wounded in battle and could reach some stream or pool where, for a time, with their tin cups, they could pour water over their wounds, recovered more satisfactorily than those who were taken directly to the hospitals. With that preliminary treatment with cold water, many an arm or leg was saved to usefulness which, without it, would have been amputated and thrown into the scrap pile. Hot or cold applications have similar effects on inflammations. Where a quick action or effect is required, perhaps hot applications, such as poultices, compresses, etc., are preferable. But where a prolonged application is required, cold is to be preferred, because it is more easily regulated and a more even temperature maintained. In the treatment of severe cuts, bruises or sprains, he has always insisted on the use of cold water in the form of a continuous stream, which not only gives an even cold temperature, but a gentle massage as well. A thumb or finger severely bruised with a hammer, treated in that manner, is soon relieved of the pain, the nail saved, and if the treatment is begun early enough, even ecchymosis is prevented. Severe sprains, even to the fracture of the ligaments, treated with streams of cold water for from two to four hours, will be relieved of all swelling and soreness and will be well in half the time as when treated by other usual methods.

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THE FACE AN INDEX IN HEALTH AND DISEASE.

Incomplete closure of the eyelids, rendering the whites of the eyes visible during sleep, is a symptom in all acute and chronic diseases of a severe type; it is also to be observed when rest is rendered unsound by pain, wherever seated. Twitching of the eyelids, associated with the oscillation of the eyeballs, or squinting, herald the visit of convulsions. Widening of the orifices of the nose, with movements of the nostrils to and fro, point to embarrassed breathing, from disease of the lungs or their pleural investment. Contraction of the brows indicates pain in the head; sharpness of the nostrils, pain in the chest; and a drawn upper lip, pain in the abdomen.

GENERAL PROPHYLAXIS IN LEPROSY.

(Translated from the French of "La Revue de Medicine," Tome III, No. 2, p. 93-95. By E. S. Goodhue, M.D., Special Representative of the United States and Hawaii to the International Scientific Conference at Bergen, Norway, August, 1909; Delegate to the International Congress on Tuberculosis, Honolulu, Hawaii.)

In any given case the prevention of leprosy comprises two fundamental principles:

1st. To destroy the endemic foci of disease, and

2nd. To prevent the introduction of cases from without.

In Norway they seem to have stemmed the tide of leprosy by isolating all the lepers in the country, these being practically housed in the various leper hospitals of the kingdom, until they die in the natural course of the disease, or of intercurrent complications. They are forbidden to go out, but are allowed visits from their relations.

In all districts where leprosy is endemic, the same regulations ought to apply.

Lazarettos should be established, and all lepers definitely segregated in them.

These lazarettos, by preference, should be established in salubrious and fertile islands.

Children born in these colonies should at once be separated from their mothers and removed from the infected area.

Since we cannot well give these children of leprous parents to wet nurses, they should be fed by artificial means.

A strict medical supervision should be maintained over all immigrants to a country in which leprosy is prevalent.

While waiting until it is possible to isolate all known cases, we should forbid lepers doing work which requires the handling of objects (foods, drinks, opium), thus preventing their possible contamination.

Occupations which require repeated contact with other persons should also be forbidden.

What is more, lepers should be prevented from bathing in public resorts, from washing in common lavatories, from drawing water from wells and reservoirs, and from riding in public conveyances or sleeping in lodgings.

Fines should be imposed on those who employ lepers to perform any of the forbidden occupations.

As additional measures of safety, meetings and gatherings of any sort, schools, prisons and institutions for the indigent, should be inspected and supervised.

Marriage ought to be forbidden to lepers.

Methods of personal prophylaxis have been summarized by Besner, as follows:

Thorough disinfection by lepers of the nose, mouth and all external parts; all ulcers to be covered by dressings.

Vaccination against smallpox to be done with cow vaccine only.

Obligatory disinfection by all practicable means of clothes, *lingerie*, and all articles used on or about the person.

Moreover, in countries where leprosy is endemic, residents should be protected from the bites of all insects parasitical to man, as well as from the bites of mosquitoes.

DEGREES OF FEVER.

The normal temperature of the body is 98.6 deg. F. When it is more or less raised above this there is said to be fever. Degrees of fever have been recognized as follows:

Temperature under 101 deg. F. is slight fever.

Temperature under 103 deg. F. is moderate fever.

Temperature under 105 deg. F. is high fever.

Temperature at 106 deg. F. is called hyperpyrexia.

THERAPEUTICAL HINTS

"You must either soar or stoop,
Fall or triumph, stand or droop;
You must either serve or govern,
Must be slave or must be sovereign;
Must in fine, be block or wedge,
Must be anvil or be sledge."—*Goethe*.

In Germany, every wage-earner receiving over \$480 per year must be insured. Of the 15,400,000 workers over 12,000,000 are insured. The workmen pay two-thirds of the premium and the employers pay the other third.

American Medicine (November, 1908) says:

A solution composed of Glyco-Thymoline one part, water three parts, approximates the alkalinity and salinity of the human blood, thus harmonizing with the secretions of tissues treated. When applied slightly warmed to the mucous membranes of the nose and throat it is soothing, solvent, mildly antiseptic, exosmotic and anesthetic. It promotes aseptic conditions and favors the restoration of normal functions of the mucous membrane. Internally Glyco-Thymoline is antacid, carminative, and anti-fermentative. This preparation is recommended in the treatment of all catarrhal diseases of the mucous membrane, particularly of the upper respiratory, utero-vaginal and rectal tracts, as a solvent, soothing, antiseptic and alkaline wash. Internally it has been successfully employed to overcome gastric hyperacidity, gastro-intestinal fermentation, summer diarrhea of infants, etc. In obstetrical and gynecologic practice it has also proven useful. Its mild, non-irritating properties will suggest its use whenever and wherever an alkaline antiseptic solution is desired. In dentistry it has also been extensively employed.

FACTS AND FANCIES.—You can prescribe bichloride, carbolic, permanganate, hydrastis, tannin, zinc or lead, for leucorrhea or gonorrhea, if you want to, but you can't get any more positive results, effects, quicker but harmless, no matter what you use, than Tyree's Antiseptic Powder will give you. Actual clinical tests have proven this statement to be absolutely correct in more than two thousand cases. Being cheap, cleansing, harmless and very soluble, it can be used in such quantities as to insure more positive results than could be

expected from an agent which must be used with precaution. A trial package will be mailed free of charge to physicians if they will send their name and address to J. S. Tyree, Chemist, Washington, D. C.

The so-called albuminates, peptonates and other organic compounds of iron, etc., have to undergo in the organism a double transformation, at a loss of time and physiological energy; they must first be resolved into inorganic salts before absorption, and then recombined to form lecithin. In Wheeler's Tissue Phosphates only the inorganic calcium, sodium and iron are used; absorption is immediate and nature takes care to form human lecithin and other complex bodies in her own way. Where speedy results are desired, prescribe the delicious Tissue Phosphates. For free samples and literature, address T. B. Wheeler, M.D., Company, Montreal, Canada.

THE COMMON CRIME AND ITS DANGERS.—Mr. Tyree has spent a vast amount of time and research in attempts to constantly improve Tyree's Powder. That he has succeeded in perfecting a very fine and uniform product is evident from the recent flood of imitations. The physician who is interested in antiseptic powders can get some interesting reading matter with the above title and sample of his product by addressing Mr. J. S. Tyree, Chemist, Washington, D. C.

To the surgeon doing emergency surgery, the announcement that Van Horn and Sawtell, the well known manufacturers of sterilized surgical supplies now furnish a special emergency suture packet will be exceedingly good news. This emergency suture packet which sells for only \$1—contains 12 sealed

glass tubes of the regular sizes of either plain or chromicized catgut, in lengths suitable to meet all every day needs.

"I have been taking Cactina Pillets for my weak heart, occasioned by a continued illness of three months, and

have been much benefited by it. I am now able to get along better, since my heart has become stronger, and more regular, and I cheerfully allow you to use my endorsement as to its unquestionable value in functional heart troubles." Jos. Adolphus, M.D., Atlanta, Ga.

CALIFORNIA HOSPITAL NURSES' ALUMNAE ASSOCIATION

The regular monthly meeting of the California Hospital Nurses' Alumnae Association was held at the Directory rooms, 1103 West Eighth Street, on Monday, February 1st. Miss Johnson presided.

It was voted to have the meetings on the last Monday of the month instead of the first as heretofore on account of the L. A. County Nurses' Association being held on the first Tuesday. It has been found that few nurses can attend two meetings in succession when on cases. It is also necessary on account of getting our report ready by the first of the month for the *Southern California Practitioner* and the *American Journal of Nursing*.

Miss Gilbert sent her resignation as Secretary of the Alumnae Association, which was accepted with regret. Miss Franklin was unanimously elected to succeed her.

New members voted upon and accepted were as follows: Misses Peterson, Mulberry, Siekert and Mrs. Van Dyke. Miss Marks' name was presented for membership to be voted upon at the next meeting.

The "Record Sheet" was read and here follow extracts from the same:

The "Record Sheet" is now entering upon its third year. It has passed its term of probation and come to stay. It is to be kept on file and we hope to improve it to the extent of being worthy some day of publication.

The Alumnae and Directory greatly appreciate the co-operation of our physicians.

Miss Preble has returned from Ventura County, and is doing private nursing in this city.

Miss McConnell, who has been connected with the Bard Memorial Hospital of Ventura for the past two years, has accepted the position of head nurse of the maternity ward in the California Hospital.

Miss Bice of Clifton, Arizona, writes that she and Miss Chaney are enjoying their work in that place very much.

Miss Peterson has a position in the California Hospital of Sacramento.

Miss Carter is still looking after the Emergency Hospital in the Southern Pacific yards.

Miss Richards and Miss Avery, pupil nurses, have been operated on for appendicitis, the former by Dr. Beckett and the latter by Dr. Smith. Both are reported as doing well.

Miss Lickert has left the hospital and taken up private nursing.

Miss Doherty, post-graduate California Hospital, has been appointed head nurse of the first and second floors, main building.

One of the latest additions to our Training School at the California Hospital is the fitting up of a room on the first floor (new wing) as a kitchen, containing ten stoves, cooking utensils,

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etc., with all the appointments of a thoroughly up-to-date cooking school. A competent dietician has been engaged to carry on this most important factor in the training of a nurse—the science of cooking.

We are sorry to learn of a serious accident to one of our members, Miss Rosebaugh, Class '04. While riding horseback in Nevada, she was thrown and after an examination, it was found she had broken six ribs on one side, with many bruises. Latest reports say she is improving slowly.

Miss Marks has recently had a case in San Luis Obispo, and is now visiting her home in Salinas.

Mrs. Durbin has returned to Ocean Park to the patient with whom she spent most of last fall.

The regular monthly meeting of the California Hospital Nurses' Alumnae Association was held Monday, February 22d, at 2:30 p.m., at the Directory rooms, 1103 West Eighth Street, with Miss Cochran, vice-president, in the chair. Miss Cochran gave some interesting points on the new things in surgery and surgical dressings. Miss La-come outlined the Murphy method of giving salt solution, which was most interesting to those of us who have not had an opportunity of seeing the procedure—or the results. Miss Humphries' topic covered the Rosenberger Test for Tuberculosis. At the adjournment of the meeting Miss Middleton delighted the members by appearing with red, white and blue bows in her hair, bearing a tray of dainty refresh-

ments appropriate to Washington's Birthday. Cocoa pies cut in the form of small hatchets, cherries in the tea, etc.

Mrs. Raymond G. Taylor is the proud mother of a small son. He arrived recently at the California Hospital.

Miss Henneghan has returned from Oxnard.

Miss Gage has returned from Santa Paula.

Mrs. Cutler has been in Glendale for some time.

Miss Kent is still in Mexico, but report has it that she expects to return to this city soon.

Miss Marie Johnson is also busy in Mexico.

Miss Fraser is in the office of Drs. Bridge and Howard.

Miss Nichols has charge of the Maternity Building of the California Hospital.

Miss Lacomby is night superintendent of the California Hospital having been promoted from the position of head nurse.

Dr. Arthur Godin, who has been quite ill is again in the busy whirl of his practice.

We wish to correct an error in a recent publication of the *SOUTHERN CALIFORNIA PRACTITIONER* regarding the State Convention to be held in Coronado, or rather San Diego. We are in receipt of a note from Miss Cooke, editor of the *Pacific Coast Journal for Nurses*, stating that the convention will be held in August instead of June.

The Alumnae send greetings to Dr. Walter Lindley and his wife, and hope their contemplated trip to Europe will be a very pleasant one.

EFFECTS.

Bronchitis and pneumonia are not due to ether, but to secretions inspired into the lungs.

EXOPHTHALMIC GOITER.

In a special way for controlling the vascular symptoms, digitalis has proved valuable. Of strophanthus and convallaria good may be said. These remedies will not work in all cases, but will be found beneficial in some to control the distressing tachycardia. They are worthy of a trial at least. I think they are always indicated when we get manifestations of cardiac asthenia. If they do good this will be immediately manifest. Sedatives, as the bromides, are often useful, but no sedative gives so much relief in these cases as opium. But as the symptoms usually require relieving for a long time, it is a remedy that we are often kept from using for fear we may engraft the opium habit.

PULMONARY EDEMA.

In the *British Medical Journal* Wethered contributes a valuable paper on this topic. In this paper he says: That one condition under which acute pulmonary edema may be produced is after the administration of an anesthetic, most frequently after ether. He describes a typical case. Death occurred on the fourth day. In the treatment he recommends strychnine, digitalis and strophanthus, from the hypodermic injection of which he had obtained encouraging results. Squill may also be useful as a cardiac stimulant and an expectorant.

EXOPHTHALMIC GOITER.

In the *Medical Record* Spratling calls attention to the four pathognomonic symptoms of exophthalmic goiter. The first is swelling at the root of the neck; (2) protrusion of the eyeballs; (3) cardiac irritability. The fourth manifestation was first observed by Dr. Louise Fisk-Bryson, of New York, in 1888. It consists in the inability on the part of the patient to expand the chest under forced inspiration more than three-quarters of an inch to an inch.

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Assistant Editors.

DR. H. BERT ELLIS, DR. GEO. L. COLE and DR. W. JARVIS BARLOW,
Associate Editors.

THE SURGICAL PROGRESS OF THE PAST YEAR.

BY ANDREW STEWART LOBINGIER, A.B., M.D., LOS ANGELES, CAL.

Surgical advancement during 1908 has not been marked by any exceptional discoveries. It has been characterized, however, by a very animated effort to carry out lines or original experimental work, and especially by a concerted effort in every country to solve the cancer problem. Well-established principles of practice have undergone a scrutinizing analysis, and what seemed obsolete discarded for what would bear the test of modern requirements. The tendency has been toward simplifying technique and toward conserving all tissues and organs consistent with the pathologic conditions found.

Two notable reforms have distinguished the year's tendencies: First. An unusual emphasis on the study of the pathology of the living (Moynihan) as correctly exemplified at the operating table, in contradistinction with the extreme degenerative changes presenting at autopsy; and hence the enhanced value of the former as compared with the latter. Second. The growing interest in clinical evidence as of paramount value, and the impetus thereby accruing to the study of phys-

sical diagnosis. This interest has brought the internist nearer to the surgeon and enabled him to recognize surgical conditions which otherwise had escaped him. It has tended to properly blend medical and surgical diagnosis and created a better understanding and sympathy between the representatives of each guild. The bedside has for years been growingly taking its rightful first place; but this has only served to emphasize the value of real and essential laboratory findings.

It would be a wearisome task to attempt to review in even approximate detail the progressive developments in the surgery of a year. The limits of this paper will admit mention of but a few, and I shall endeavor to select such as are manifestly remarkable and important.

In the treatment by sera or vaccines of various septic infections, some disappointment has come to those whose optimism led them to expect too much. Those who have from the beginning looked askance on the virtue of streptolytic serum to arrest the ravages of general staphylococcic or streptococcic

infection, have not expected much, and hence have not marveled at the failure. The lesson has resulted in a larger emphasis on the prevention of sepsis, by a more exact diagnosis of septic conditions in their incipency. General practitioners must learn to make this early distinction if we are to have a reduction in the mortality of possible cases of general sepsis. Vaccines as applied to the treatment of chronic gonorrheal arthritis and to albus infections of the skin and follicles have resulted in favorable reports.

INTRA-CRANIAL SURGERY.

As has been true in other years, the past one has received some of its most valued contributions to surgery from the field of experimental physiology. The most notable contribution of this character has been the work reported in *Brain* on the "Structure and Function of the Cerebellum, Examined by a New Method," by Sir Victor Horsley and Dr. Robert H. Clarke. These investigations were begun as early as 1903, but the first detailed reports were made in the *British Medical Journal* in February, 1906, and July, 1906. These studies "were undertaken to determine the anatomical relations of the cortex of the cerebellum to its nuclei and peduncles, or to the spinal cord." Ferrier and Turner, Risien Russell and Thomas believed there was no direct path from the cortex of the cerebellum to the peduncles or to the spinal cord. Horsley questioned these conclusions and was able to prove that not only was the belief of Marchi and of Ramon y Cajal in a *via descendente* into the spinal cord correct, but "that the cerebellar cortex is essentially a recipient organ (Edinger); its efferent fibers passing to neighboring folia and to the cerebellar nuclei, the latter being regarded as stations interposed between the efferent cortical fibers and the rest of the nervous system. Collectively, therefore, these nuclei might be con-

sidered the focus of cerebellar activity and regarding this as the standpoint from which further investigations of their structure and function must proceed, a systematic inquiry into the function of the cerebellar cortex and nuclei was undertaken." The animals used in these investigations were the cat, dog and monkey (*Macacus rhesus*). In order to study each cubic millimeter of cortical and nuclear substance with precise accuracy, Dr. Clarke devised what he termed a "stereotaxic instrument" whereby the brain could be Faradically stimulated or electrolytically decomposed, as experiment required. Three planes of section were thus required to pass the electrode within the dimensions of a cubic millimeter. The writer first saw this instrument in the summer of 1906. It is an ingeniously devised and exceedingly complex instrument fastened on the skull, and the reckoning starts with the center of the encephalon as zero, working outward to the periphery. After many experiments, electrodes of fine platinum wire insulated with delicate glass capillary tubes were devised so that the decomposing spark can be produced at the precise spot of measured accuracy for electrolysis of nuclear substance. The same accuracy may be obtained in the area (cubic millimeter) for Faradic stimulation. I have examined a large number of photographs of nuclear areas destroyed by electrolysis, and been amazed at the accuracy with which the destructive change is defined. It is obvious that these remarkable studies will open up the exact interpretation of the nuclear and cortical functions not only of the cerebellum, but of the cerebrum. And when it is recalled that we have the vaguest knowledge of the functions, individual and co-ordinated, of the brain nuclei and of any reliable peripheral evidence of precise anatomic location of a nuclear lesion, it is apparent how remarkably important and

exceptional in its intrinsic value is this intracranial work. The second part of the report giving full details of the representations of function in the cerebellar nuclei is now due and will appear shortly.

Much interest has been shown in the study and relief of intracranial trauma, whether associated with "bursting fractures" (Harvey Cushing) or without adequate external evidences of serious anatomic lesions (Hartwell).

Cushing has within the year emphasized his belief in the value of decompressive operations, which he has advocated and practiced for the past three years, in all cases where evidence of severe intracranial tension existed. This tension may be in one instance (1) *immediate*, due to extravasation from rupture of cortical vessels; (2) *intermediate*, where a free interval of consciousness may exist temporarily, but gradually pass into stupor from an extradural extravasation, and (3) *late*, often a matter of several days, when cerebral oedema occurs.

Every writer of prominence, Horsley, Krause and Cushing, especially, urge the great importance of the immediate examination of the fundus in every case of intracranial tension, whether from extravasation or neoplasm. Choked disc is always a definite indication for prompt interference, where confirmatory evidence, as headache, vomiting, slow pulse and rise in blood pressure are present. Optic neuritis should be regarded a symptom of paramount and most significant importance, and the neglect to heed its warning, little short of culpable negligence.

Cushing's technique for subtemporal decompression is a straight incision through the skin separating the fibers of the temporal muscle and making an opening in the skull $4\frac{1}{2}$ c.m. in diameter under the muscle, and opening the dura. Of the last fifteen cases of fracture at the base, only two were lost,

and those were due to bilateral extravasation, one extradural and one subdural; but one side was opened. Previous to this decompressive measure the mortality in basal fractures in Cushing's clinic was 50 per cent.

Cushing closes his latest expression on this subject: "I believe in view of our experience with this simple operation, which in so far as the approach to the cranial chamber is concerned differs from the subtemporal decompressive operation for tumors only in the obliquely vertical instead of curvilinear dissection of the scalp incision, that less risk is run even in the milder, or borderline cases, by a prompt exploration and decompression, than in waiting for nature to take her own course in absorbing extravasation and oedema in an unopened skull."

Stimulated by Cushing's brilliant work in infants' suffering from traumatic hemorrhage within the cranial vault, as a result of forceps delivery, a number of successful cases have been reported during the year, and the work in America has attracted considerable attention abroad. We may look for an increasing number of reports in this interesting class of intracranial traumatism. It is obvious that critical observation is discovering a greater number of such cases, and that the more common use of obstetric forceps is likely to result in an increase in the frequency of their occurrence.

In the recognition and surgical treatment of brain tumor a steady advance has been made, notably in the exposure of a larger cortical surface by more extensive osteoplastic resections, and by more approved methods of lifting the encephalon from its bed, and the facilitated approach to the cerebellar-pontal angle.

Abscess of the brain has remained the *bête noir* of the brain surgeon, and no doubt will continue to be, until a more definite symptomatology has

been worked out and a more radical procedure, such as the exposure of the entire parietal cortex and free drainage of the basal fossae, is conceded.

Traumatic epilepsy has received much attention, but surgical relief has followed the rational lines hitherto practiced in this condition. Trigeminal neuralgia has been treated by injections of absolute alcohol into the ganglion. (Kiliani.) But this procedure has been followed by relapses, as was the case in Bennet's osmic acid treatment. For this reason the method has not enjoyed a general acceptance, and extirpation by the Hartley-Krause method remains the approved procedure.

In the surgery of the cord little advancement has been made. The Stewart-Harte and Fowler cases are cited as examples of partial restoration of function in apparently completely severed cords. But the ingeniously conceived and brilliantly original studies and deductions of Murphy on nerve and cord repair, class these cases as surgical paradoxes and leave a rather gloomy horizon for traumatic lesions of the cord, especially those where complete severance has occurred.

INTRA-THORACIC SURGERY.

The principal progress in the surgery of the thoracic organs has been in operations on the heart and drainage of the pericardium. In every country, from every metropolis, have been reports of successful repair of stab wounds through the heart wall. These have been chiefly ventricular wounds, and when seen early before exsanguination had time to occur, operation has been followed by recovery in the majority of cases. One of the most brilliant instances of this high-class work was a case of George H. Peck, who on June 14, 1908, in his service in the Roosevelt Hospital, successfully closed a stab wound in the right auricle. The patient (a young negress) recovered. Few instances of wounds of the auricle

have recovered, due to the greater difficulty of reaching the auricle and to the thinness of its walls.

The work in *drainage* of the *pericardial cavity* in suppurative pericarditis has been very satisfactory. Discrimination is necessary in the type of cases most favorable for this measure and in the choice of time when it shall be done. But as Eliot, who has just reviewed this interesting field and reported a case of his own with recovery, says, while cases of general sepsis or septic metastases are less favorable, in any case, not in *extremis*, an effort should be made to relieve the embarrassed heart by draining its distended sac. It is an operation which may be distinctly and immediately life saving, but should be undertaken with all the physiologic precautions a skilled operator can bring to bear.

Roberts in 1897 reviewed the literature of suppurative pericarditis and tabulated 37 cases operated on up to that time. In 1900 Porter added 10 more. Eliot (*Annals*, Jan., 1909) reviews briefly the 21 cases operated since Porter's contribution, and adds a detailed report of a successful case operated by himself.

Eliot discusses the favorable point of entrance of the thorax at some length, quoting the views of Curschmann, Rioloan, Skelderop, Velpeau and Bacon, who favor trephining the sternum, and Glück, who would enter just within the outer boundary of *pra cordial* dullness. "In the cases hitherto reported the pericardium has been opened after the re-section of an overlying costal cartilage. Roberts suggests that a musculo-cartilaginous flap consisting of the mediam portion of the 4th, 5th, and 6th costal cartilages, and of the tissues of the intervening spaces, be raised from the anterior surface of the pericardium and pleura." While this freely exposes the field and avoids entrance of the left pleural cavity, the grave con-

dition in which we find these patients demands simplicity of technique and celerity in operating. Allingham, who promises a report of three cases shortly, advises entrance to the cavity through what he terms the "epigastric" route. "The incision is made to the left of the median line just below the costal insertion of the rectus muscle, and is gradually deepened upward through the costoxiphoid space in the diaphragm to the base of the pericardium, the peritoneum being pushed downward." By this method of approach the pericardial sac is drained at its most dependent point and the left pleural cavity is avoided. Eliot favors entering the thorax through the 5th or 6th costal cartilages through an oblique incision parallel to its long axis. The pericardium is opened, the pus evacuated, any delicate adhesions which may have formed broken down gently and rapidly and the lips of the incision in the pericardium drawn to the skin and secured there by sutures. Drainage is maintained best by rubber sheathed cigarette drains. They are soft and will not produce the cardiac embarrassment which occurred in Riedel's case in which he used rubber tubing.

Notwithstanding the active interest of the past year in cardiac surgery, experimental operations on the lungs, both in the laboratories in this country and abroad, have continued with unabated enthusiasm. Besides these studies, the clinical application of previous deductions from the work of Sauerbruch in the employment of negative atmospheric pressure, and of Brauer and Petersen in the use of positive pressure apparatus to control pneumothorax and pulmonary collapse, have had a fair testing in various clinics throughout the world.

The objection to the Sauerbruch cabinet, namely, its size and cost, have caused it to be slow of adoption. There is no doubt, however, of its merits.

Experimental workers have sought for obvious reasons to devise a smaller apparatus, which by a carefully adjusted plus-pressure, ranging from $5\frac{1}{2}$ or 6 mm. to 8 or 10 mm. during the operation, and 12 mm. pressure at the moment of closure of the parietal plura, to secure approximately as safe conditions as with Sauerbruch's more cumbersome and costly equipment. Besides, if a cheap and portable apparatus can be devised which is free from the objections which Sauerbruch urged against all plus-pressure methods, a great practical advance will have been achieved in intrathoracic surgery.

Probably the most interesting report of the year, therefore, in this work, is that of Robinson (*Annals*, Feb., 1908), who conducted his work in the Division of Surgery of the Department of Physiology at Harvard. The report indicates exceptional exactitude in every procedure, with the possible exception of an unfailing sepsis, due to conditions which the operator believes can be easily overcome. Of thirty operations ranging from pluerotomy to pneumectomy, most of them being partial or total lobe excision, there were twenty-one recoveries and nine deaths. This is the lowest death rate as yet recorded in experimental lung surgery, and is most creditable. Very naturally Robinson feels he has to a large extent overcome the objections of Sauerbruch to a plus-pressure apparatus, and he says in conclusion "there is reason for encouragement from these experiments that for partial lobe excision, exploratory operations, and for the removal of foreign bodies, we have a reliable method which is not attended by the inconveniences and expense of a negative-pressure cabinet."

In any discussion of the experimental work on the surgery of the lungs it must always be remembered that most of these experiments are done on collapsible lung tissue, which has never

been inflamed or solidified by proliferative or exudative infiltration, or become adherent to the parietal walls of the thorax by infective inflammation. Hence it has always seemed to me that the experiments on animals' lungs wherein no infective change had been established, and in which constitutional deterioration and cardiac and respiratory depression were not present as vital factors in the problem of resistance, were far from affording correct data on which to predicate clinical work on the diseased lungs of man. As an illustration, what would be the value of Delagénière's technique of "gradual lung collapse" in the excision of an adherent or consolidated or caseous or gangrenous lobe, or one bound down by long months of mixed infection and abscess?

There is very much yet to do in the adaptation of our knowledge of the physiologic conduct of the intrathoracic organs to the pathologic conditions which we are called on to treat surgically; and our enthusiasm over the illuminating experimental work in the surgery of the chest should never permit us to lose sight of this fact.

As an illustration of probably the most daring work of intrathoracic surgery yet published, are the three cases reported by Trendelenberg at the April meeting of the German Congress of Surgery, of operation on the pulmonary artery for embolism, at the Leipsic clinic. The first patient, a man of seventy, died on the table before the operation was completed. Of the other two (*Deutsche Zeitschrift für Chirurgie*, Vol. XCIII, P. 282, and *Deutsche Wochenschrift*, Vol. XXVII, 1908) two pieces of thrombus as much as 34 cm. long, were removed from the artery. After the removal of the thrombi the pulse became very greatly improved in rhythm and quality. The first of these patients lived fifteen hours after the operation, dying of heart fail-

ure. The second lived thirty-seven hours, dying of post-operative hemorrhage from the internal mammary artery. The autopsy in the latter case showed an embolus in a branch of the artery which had been overlooked. Notwithstanding Trendelenberg's observation that the operation may prove successful if the patient is in the hospital and fifteen minutes are allowed to the surgeon in which to do it, it is a fact that as yet it is a surgical curiosity, and many cases of pulmonary embolus not only do not live fifteen minutes, but still fewer surgeons are capable of opening the thorax and removing a clot from the pulmonary artery and its branches in twice that time.

INTRA-ABDOMINAL SURGERY.

The focus of surgical interest within the abdomen has continued to center about the stomach and right hypochondrium.

In gastric lesions ulcer and cancer remain paramount. Rodman, in a paper before the American Surgical Association on "How Frequently Do Gastric Ulcers Become Carcinomata," gives 50 per cent. of cases as a conservative ratio. He quotes W. J. Mayo as finding 54 per cent. in his clinic. Moynihan found in a series of twenty-two cancers of the stomach, ulcer had existed in sixteen, or 72.1 per cent. Robson, in the Bradshaw lecture, reported 59.3 per cent., with a previous history of chronic ulcer. Ssapesenko reports a series of cases of gastric cancer with 90 per cent., giving a previous history of chronic ulcer. Rodman recommends excision of all suspicious lesions, either by simple excision, or by pylorotomy or partial gastrectomy, as each individual case may require. Moynihan at the same meeting read a paper on "Late Results After Operation for Benign Diseases of the Stomach and Duodenum." He reported 281 patients operated on up to the end of 1905, of which number he had recent informa-

tion on 265 cases. There were 27 cases of perforating ulcer with 18 recoveries. In 6 cases gastroenterostomy became necessary at the time of closure of the perforation owing to the consequent stenosis at the pylorus. In two other cases gastroenterostomy later became necessary, making 8 out of the 18. He finds that when perforating ulcer is well away from the pylorus, gastroenterostomy is not necessary. There were 27 patients operated upon for acute hemorrhage, with 23 recoveries, and of this number 18 report themselves perfectly well. Of the patients operated on for chronic gastric and duodenal ulcer there were 205, and 214 operations, with but 2 deaths. W. J. Mayo and John B. Deaver, in this same notable symposium on the surgery of the stomach, contributed the results of their rich experiences. No unprejudiced reader of these unprecedented reports on gastric pathology and its surgical correction can fail to be impressed with the astonishing end results. The lesson is so clear that none can fail to recognize that chronic gastric lesions are almost wholly amenable to surgical remedy and to this alone.

In the surgery of the gall bladder and ducts the principle of drainage first urged by Mayo Robson, has within the year received added emphasis in its application to simple uncomplicated chronic cholecystitis without stone. It has been observed that in vaguely defined digestive disturbances associated with a tender gall bladder, several weeks' drainage result in a cure of the digestive trouble and permanent relief of the cholecystitis.

Ranschoff's experimental studies concerning the sudden fall of blood pressure in exploration of the choledochus go far toward explaining a clinical fact long observed in common duct operations. It is not more true of the gall ducts than of other abdominal viscera contiguous to the large venous trunks

and splanchnic plexuses and ganglia. Murphy years ago pointed out the large element of shock in the unnecessary handling of the abdominal viscera. Mr. Robson has always considered cholemia the gravest of infections—a toxemia which may reduce the ability of haemoglobin to take on oxygen to the lowest minimum, and may cheat the operator from reward in his cleverest efforts. The year's work in the surgery of the gall bladder and ducts has served to further accentuate the intimate relationship between the pathology of chronic pancreatitis and inflammatory changes in the bile tract.

Mayo Robson's work on the Surgery of the Pancreas, in collaboration with Dr. Cammidge, represents the best thought that has been presented on this very interesting subject. Each year's study of the physio-chemistry of the gastric, biliary and pancreatic secretions and functions, and the complex pathology resulting from their disturbed relations, discloses the vast importance of this region as a field for professional effort. It is not surprising that surgical literature is richly embellished with contributions from this field.

In the surgery of the liver perhaps the feature of chief interest has been the number and extent of resections of lobes and portions of lobes—in one instance the greater portion of the left lobe of the liver having been successfully removed. Several cases of removal of gall stones high up in the distribution of the hepatic ducts have been reported. In hepatic surgery the control of the hemorrhage has been the principal obstacle to overcome. This is now very much better understood and consequently the formidable hazard in this class of work is greatly minimized.

As the pathology of the spleen becomes better understood the indications for splenectomy are correspondingly

defined. Much of the mortality in the past has been the result of failure to distinguish both on the part of the internist and the surgeon the cases which would survive and be benefited by extirpation. A large number of successful splenectomies have been reported during the year.

No clinical report of the year has attracted more widespread attention than that made by John B. Murphy at the May meeting of the American Surgical Association, on the "Treatment of Perforative Peritonitis." Of the 51 cases reported, 49 recovered after operation and 2 died, one of a double pneumonia, and one of mechanic ileus. "There were, therefore, no deaths in the series of 51 cases from peritonitis *per se*." Of these 51 cases, there were 6 of post-operative ileus. There were 2 cases of gastric perforation, 1 duodenal, 5 typhoid, and 43 appendical. "The sources of infection in over 90 per cent. are from the vermiform appendix and the pylorus." An important role is played by the staphylococcus—it appears first and disappears last. Then come in the order of importance: colon bacillus, streptococcus, pneumococcus, pyocyaneus, typhoid bacillus, gonococcus, staphylococcus aureus, etc."

Murphy believes there is probably no disease, not excepting diphtheria since antitoxin has been discovered, in which changes in treatment have reduced the mortality percentage so noticeably as the modern treatment of general septic peritonitis. The first step in the treatment, as soon as diagnosis is made, is to place the patient in the semi-sitting posture (Fowler position). The next step is to relieve pus tension by opening the abdomen quickly, making no unnecessary disturbance of viscera, and establishing proper drainage—all in the shortest possible time, and with the least possible anesthesia. The next step is proper proctoclysis (Murphy) and

maintenance of fluid in the colon by strict attention to details.

Murphy concludes with these words: "Based on the facts cited in the paper, it is believed the results in the future in these cases of general, diffuse, free peritonitis can and must be uniformly good. This estimate involves the assumption that the medical profession will make early diagnosis, will insist on early intervention, will limit its surgical procedures to the least possible handling and trauma consistent with closure of the opening and relief of pus tension; will limit the duration of anesthesia and the amount of the anesthetic, will shorten the actual time of operation, will insure the continued absence of pus tension, will eliminate the sepsis already in the blood, restore the blood pressure and inhibit absorption by position.

"None of the above can be considered individually as a life saver, but each plays an important role in securing the present good results."

From the reports on the surgery of the vermiform appendix it is apparent that primary carcinoma is a very much more common affection than formally believed. A very large number have been reported during the year, both in this country and abroad. Up to the time of McWilliams' paper (June, 1908, *American Journal of Medical Sciences*) 105 cases were on record.

Nothing newer or better than the doctrine of early diagnosis and prompt operation in appendicitis has been added. This applies to tuberculous and cancerous affections of the appendix, as well as acute septic destruction of this organ. The feeling never prevailed so strongly before among surgeons the world over, as shown in the writings of the past year, that appendicitis is first and last a purely surgical condition, to be treated surgically from the moment diagnosis is made.

There has been very marked interest in the pathology and treatment of acute and sub-acute and chronic diverticulitis, growing out of a more critical study no doubt of the affections of the colon and sigmoid. The feeling prevails generally that surgery will have to lend a more active aid to internal medicine in reaching the complex pathology known under the head of "colitis," if proper and adequate relief is ever to be afforded these unfortunate subjects.

Weir's appendicostomy provides a convenient *via* for colonic irrigation in those forms of infective and ulcerative colitis which require medicated flushing, and has gained somewhat in popularity as its indications are better understood.

The surgery of the pelvis in which, for convenience and brevity, we may include affections of the rectum, has made little notable advancement. Cancer of the uterus and rectum remain the greatest problem, and here, as in the stomach, the destiny of the victim hangs on the early diagnosis. So far nothing better than the technique of Wertheim in hysterectomy with extensive dissection of the lymph glands, and of Moynihan in his radical excision of the rectum, has been suggested.

There has been very much contributed on the surgery of the bladder, ureters and kidney which would prove of interest were there time for extended comment in this review. Brewer's reports on acute septic infarcts should be especially noted. The exceptional work of Rovsing in tuberculosis and carcinoma affecting these organs, is also worthy of particular mention. In the main, however, the work reported has followed well-considered lines and the established principles hitherto accepted.

The Bier treatment by hyperaemia has not received the wide and cordial adoption at one time promised. There has been a feeling that optimistic dis-

ciples of Prof. Bier were claiming more than was ever intended, and in the hands of many careful and conscientious men it has not proved efficient nor practicable except in a somewhat limited sense. Lexer, Thöle and Wrede have taken very strong stand against Bier's claims for this treatment, and aver that he has been compelled to finally resort to incisions to obtain the best effect in phlegmonous inflammation.

Nevertheless, Willy Meyer and Victor Schmieden have thought well enough of Prof. Bier's work to write a book on it, and doubtless it will have its vogue, as many other things invented to "avoid the knife" have had, only to pass later into a very limited sphere of application. A sensible modification of Bier's principles was presented in a paper by Dr. James N. Vander Veer in 1906, wherein he preceded the cupping by a suitable incision, an outlet for drainage thus being established.

Beck's Bismuth-emulsion-paste treatment of chronic tubercular sinuses and cavities we may properly include in the features of surgical progress of the year. Most of you are so familiar with the history of this method and its application to chronic sinus tracts that I need not describe it in detail. Here, however, as in Mosetig Moorhoff's "plumb" treatment, the strictest attention to the details as laid down by the author himself must be rigorously enforced. The reports coming in show that this treatment has distinct limitations, however, and it must not be assumed that it alone will cure Potts disease of the spine or tubercular hip joint disease, or tuberculosis of any large osseous or synovial area with destruction of bone and cartilage. These conditions have undergone such structural change that the well-established lines of orthopaedy must still be followed rigidly. Beck's injections in

suitable cases will aid in the repair—that is proven. But we must not allow enthusiasts to run away with the idea that it is self sufficient. Too many failures are reported to question this fact.

Notably flattering reports from the best clinics have appeared on tendon grafting and transplanting and nerve grafting in cases of infantile paralysis. As a very great aid to orthopoedic measures of recognized value in valgus and varus, tendon work has become indispensable.

Among the experimental work of singular interest may be mentioned: Carrel's work (Rockefeller Institute) on hetero-grafting of various organs—kidney, ovary, thyroid, etc. Other equally interesting reports in this work are Martin's (Surg., Gynecol. & Obstetrics, VII-7). Kocher reports (German Surgical Congress, April, 1908), on the feasibility of grafting thyroid in bone, mentioning a number of cases and commending the technique in hypothyroidism as easy, accessible and quite as efficient as the case by Payr of Griefswald, who reported his spleen graft case before the Congress in 1906. Kocher grafted into the tibia. Müller, von Eiselsberg and Garré also reported cases grafted into the tibia, with favorable results. Lexer of Königsberg reports the best work of the year in transplantation of bone and joints, having preceded his clinical experience by a series of experimental investigations on animals. In the transplanting of a

knee joint in a young subject he reports very gratifying and practical results, and a useful limb. Of course the innervation and blood supply remain undisturbed.

A number of cases of arterio-venous anastomosis, with practical results, are reported. Many other attempts to avert embolic gangrene in the extremities failed. There is a definite, though limited, field for this work, and no doubt much more will be done during the coming year.

I cannot close this review without allusion to that greatest of surgical problems before us today, the cancer problem. It is a melancholy fact that our hopes each year fail in fruition.

When the University of Heidelberg set apart a Cancer Research Laboratory and Hospital, and, on his retiring from his long and honorable service as Professor of Surgery in the University, placed Prof. Czerny in charge, much was hoped for. That was only two years ago, it is true, and the institution is only getting under way, so that it is too soon to expect very definite reports of progress. We may be sure, however, that with the leading countries of the world focusing their attention on this vital problem in the various Cancer Research Commissions already established, it cannot be long before definite knowledge of the etiology and effective treatment of the dreaded disease will be achieved.

Herman W. Hellman Building.

THE MEDICAL PROGRESS OF THE PAST YEAR.

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INTRODUCTION.

The line of demarcation in medical years is so poorly defined that it is hard to outline the progress during a single year. This has not been a prolific year for the announcement of new discoveries in any line of work. It

has been principally a year for trying out the announcements of the last two or three years. There have been gratifying results reported along some lines and disappointments along others; 1908 cannot be said to be epoch-making in medicine.

In reviewing literature of a year, the reviewer's own personal interests are bound to put certain things to him most important in the foreground, and other things probably of just as vital interest, in the background, or make him ignore them entirely as seemingly trivial. In a short paper of this kind only passing notice may be given to a number of things that may prove useful in the future.

To more easily follow a paper of this kind it is better to take up the progress under separate divisions.

First:

INFECTIOUS AND CONTAGIOUS DISEASES.

Typhoid Fever—The value of blood cultures has been again emphasized in the early diagnosis. The simplification of the technique by the use of small amounts of blood and the growth of the bacteria in ox bile has placed this means of diagnosis within reach of all of us.

1. Francis Peabody reports 33 cases of typhoid in which blood was taken from the ear 1 to 2 c.c. and pure ox bile was used. In the first week 100% were positive; second week, 78.9%; third week, 44%; average, 72.7%. As has been frequently shown in the last few years, blood cultures are of more value in the first two weeks; the Widal after that time.

2. Victor Vaughan, reviewing the work on specific therapy in typhoid, gives us very little cause to hope for a serum that will compare with that used in diphtheria or tetanus.

3. Chantemesse, however, again reports on his antityphoid serum in 1000 cases with a mortality of 4.3%. With the exception of two or three other French physicians there have been no tests of this serum made, so we can hardly judge of its value at present.

4. Chantemesse's "Ophthalmic - typhoid" reaction is reviewed by Hamburger in the J. A. M. A. He also reports tests of his own in which he used

a different technique in the preparation of the solution for instillation.

His results are summarized as follows:

"By the instillation into the eye of typhoid patients of one drop of an extract of the typhoid bacillus, a reactive inflammation has been caused which probably is specific and possibly universal. In diseases other than typhoid, a less intense and shorter reaction occasionally appears which in most cases may easily be differentiated. These results agree closely with those obtained with the alcoholic precipitate of Chantemesse."

This should, if proven accurate, give those away from laboratories definite help in the diagnosis of typhoid.

The subject of bacilli carriers have been so frequently commented upon by the medical and lay papers in the last year that the subject has grown stale. The report of a cure by drainage of the gall bladder is of interest, but probably not practical unless we can get more stringent sanitary laws.

Mr. Crowe's work in the Johns Hopkins Hospital with Hexamethylenamine gives us hope of a cure in these cases without operation. Urotropin was shown to be excreted in the bile, the pancreatic juice, cerebrospinal fluid, and synovial fluid. Large doses, 75 to 90 grains per day, were used in biliary fistula, with rapid sterilization of the bile, and only occasional symptoms of strangury—which readily disappeared on stopping the drug for a day or two.

Pneumonia—The work in pneumonia has been principally along the line of gathering statistics. The fresh air treatment has been freely discussed and given us reassurance to use it in all possible cases.

Rosenow's experience with vaccine therapy has shown us the futility of vaccines in this disease, no different results being obtained with vaccines than without them. His findings that viru-

lent pneumococci are not susceptible to the action of normal opsonins is of definite interest.

Cerebrospinal Meningitis—Epidemic. This disease has interested us particularly in the last few years on account of the great number of sporadic cases as well as small epidemics reported throughout the country.

The mode of infection and the pathway that the meningococcus travels to gain entrance to the meninges has caused much discussion. The finding of the meningococcus in the nasopharynx in normal persons, persons suffering from cerebrospinal fever and those nursing these cases, makes it probable that the atrium of infection is in this region. Whether the meningococcus is carried to the brain by lymph channels, blood vessels, or passes through the cribriform plate, is a mooted question well discussed by Foster in a late 1907 article.

This disease has been proven in the last year to be a true septicemia by the finding in the peripheral blood the diplococcus in quite a number of cases.

Anti-meningococcus serum of Flexner and its results have been the subject of many reports from standard sources, which make us feel that we have in this a cure as effective as the antitoxin for diphtheria. Definite rules for its use have not been worked out, but the essentials seem to be: 1. Early use. 2. Injection into the spinal canal after evacuation of 30 to 40 c.c. of fluid, of 30 c.c. of antimeningitic serum. 3. Repetition within 24 to 48 hours. The mortality in early cases—1 to 7 days—being about 18.4%.

Late cases, 7 days on, 36%.

Under usual treatment average mortality, 70%—Holt.

Unfortunately this serum is not on the market, so is only available in case of epidemics of reasonable size. One or two years more will probably be

necessary to absolutely fix its value, as different epidemics show different mortalities.

Syphilis—Wasserman's sero-diagnosis for syphilis first worked out in 1906 has only been tested in the United States in the last year. From the reports the value of it seems indeed great—80-90% of all cases of syphilis—whether in the primary, secondary, tertiary, or parasyphilitic stage reacting positively. The evident difficulty of the technique, and the necessity for access to a large clinic and plenty of animal material can only at present limit its usefulness to large centers and place it in the hands of expert laboratory workers.

Butler's conclusions are well worth quoting as they seem to be the opinion of the other writers on the serum diagnosis.

J. A. M. A., September 5, 1908.

The serum reaction for syphilis is specific.

It is found positive in from 90% to 95% of all cases with syphilitic manifestations.

It is found positive in 50% to 60% of latent cases.

It is found positive in from 70% to 80% of parasyphilitic diseases.

The reaction is in many cases influenced by treatment of the patient and it is not improbable that this number would be greatly increased if the reaction were pursued throughout prolonged treatment.

A positive reaction indicates activity of the specific virus, and is an indication for antisyphilitic treatment.

While a positive reaction indicates syphilis, a negative reaction does not have an equal negative value.

It is diagnostic of a systemic infection, whether acquired or inherited, and not an organ diagnostic measure.

The reaction will be found of enormous advantage in differential diagnosis in every department of medicine.

Gonorrhea—Gonorrheal urethritis is out of the domain of this paper, so will not be discussed.

Gonorrheal arthritis, however, does seem a purely medical condition, and with the work done in the last year we may hope to keep it there.

Irons and a number of others report the treatment of gonorrheal arthritis by injection of dead gonococci seems encouraging, though sufficient number of cases have not been treated to give any basis for comparison. Irons' use of dead gonococci for diagnostic purposes will add greatly to our knowledge of obscure joint conditions if successful. Its close analogy to tuberculin for diagnosis in tuberculosis makes it seem most probable.

Rogers & Torrey's antigonococcus serum now on the market is discussed by Belfield in *Prog. Med.*, Dec., '08. His conclusions are as follows: 1. The serum has no effect in acute infections. 2. Doubtful effect in subacute. 3. Undoubted value in chronic gonorrheal joints.

While on the subject of infection we may as well speak of our disappointments.

Vaccine therapy in acute infections or in septicaemias—by this we mean general infection by whatsoever organisms—has not proven so far of any practical value. Isolated cases may be pointed to as having shown wonderful success. But the cold facts of statistics have failed to prove that these cases were cured by vaccines homologous or otherwise.

The mortality of pneumonia has not decreased with vaccine therapy. Typhoid fever has not been influenced by it. Malignant endocarditis at times gets well without vaccines, and has gotten well with vaccines.

Chronic skin infections, joint infections, in fact all chronic processes caused by bacteria, seem to be improved by vaccine therapy—this is sound

theoretically as well as proven practically.

The practical use of opsonic index estimation is another of our disappointments. Much as it has been of use in stimulating investigation along the lines of immunity and its great experimental value, its variability makes it of little value in clinical medicine.

The variations are due to many causes; a few of them may be mentioned.

1. The personal equation of the worker, which is so dangerous in such exact work.

2. The absolute lack of control of factors that may raise or lower the index—for example, Irons found in his work on gonorrheal arthritis that the index was raised by massage of the prostate, or infected joints, that fluctuations occurred without apparent reason, but probably simply from movement or jarring of the inflamed joint. This must be true in any infection. Auto-inoculation should have the same effect as injection of vaccines from without.

3. The variable action of opsonins on different organisms. Rosenow's work on virulent pneumococci is an example.

4. Opsonins are only one of the factors in immunity, and so cannot be used as index for the whole process.

Many other variabilities might be mentioned equally as important. These are, however, sufficient to show the absolute unreliability of opsonic work as a clinical guide.

The report of untoward results following the use of different antitoxins has brought forth vigorous discussion of the cause. The surgeon's friend, status lymphations, has been given the credit in some cases, but the work in anaphylaxis has given us perhaps better ideas as to why some patients are affected by serum. A beautiful example of this has been found in the use of the Calmettes test, an eye of a nor-

mal person in which tuberculin has been instilled will react for weeks after this, if tuberculin is again instilled.

DIGESTIVE SYSTEM.

Stomach—The most interesting article on the stomach of this year is Chevalier Jackson's description of his work with the gastroscope. The accuracy of diagnosis that may be obtained by the actual seeing of conditions within the stomach is untold. All of us realize the absolute need of some method of early diagnosis in carcinoma—this method would seem to give it. By careful manipulation he claims to be able to cover the whole area from the pharynx to the pylorus—diagnosing cardiaspasm, carcinoma, ulcers, new and cicatrized, and gastritis. May this new means do away with the necessity for some of the exploratory incisions.

Cannon's article on "The Acid Control of the Pylorus," discussed in *Prog. Med.*, is worthy of notice. His theory, which he proved by a number of experiments, may be briefly stated as follows:

1. The pylorus is tonically closed when food is ingested.
2. The appearance of acid at the pylorus causes the sphincter to relax—peristaltic waves press the acid chyme into the duodenum.
3. The acid in the duodenum causes the sphincter to contract.
4. Neutralization of the acid chyme is accomplished by the alkaline pancreatic juice.
5. The stimulus causing closure of the sphincter is weakened and the acid chyme in the stomach is allowed to relax the sphincter.

This knowledge of the stomach mechanism should help us in stomach dietetics and medication.

Another article is reviewed in the same magazine written by Boldyreff on pancreatic digestion in the stomach. Boldyreff claims that in certain normal

conditions pancreatic juice, bile and succus entericus make their way into the stomach and the digestion of fats takes place in it.

The suggestion has been made that the sufficiency of the pancreas may be gauged by massage of the duodenum—thus forcing the pancreatic juice, bile and succus entericus into the stomach—the stomach first being washed out with soda solution. The contents after this manipulation being withdrawn and examined. The difficulty, not to say the impossibility, may be well imagined.

Pancreas—This subject has been covered fully in the society by a symposium only a few months ago.

The Cammidge test, which seemed to hold out some promise for help in pancreatic disease, is discussed by J. Henry Schroeder—his work and his review of others, while limited, shows that at present we shall have to depend on clinical signs rather than the laboratory test for diagnosis.

Respiratory System—Tuberculosis has of course held the center of the stage in the last year, but the volumes of new thought, good and otherwise, it is to be hoped will take up a full evening in the near future.

Freund's proposal of operative interference for the cure of emphysema and the successful carrying out of his suggestion by other surgeons marks the passing of another purely medical disease. This is probably the medical man's own fault as proper early treatment should prevent the condition of immobilization of the chest which calls for this operation.

Grocco's sign, which seemed at first to be of definite value in the diagnosis of serous from purulent effusion of the pleura, has been found in a number of other conditions outside the pleura—abdominal multilocular cysts, pregnancy (Smither), subphrenic abscess (Beall), ascites (Ewart). Ewart advises that "the crucial test" of ex-

amining the patient after change of position from side to side be made, and that the sign will then be properly construed.

CIRCULATORY SYSTEM.

The Heart—The magazines of the last year have contained many valuable articles on the arrhythmias of the heart—nervous as well as organic.

Giving us a much clearer idea of the reasons for the most puzzling problems in cardiac diagnosis.

Since Erlanger's experimental work on compression of the bundle of His and Stengel's report in 1905 of a lesion in the intraventricular septum in a case of Stokes—Adams disease—many more cases have been reported. James has collected 24 cases and reports 2 of his own of partial or complete heart block with autopsies showing lesions in the bundle of His.

Kidneys—Uraemia—Lumbar puncture has been used in the last few years in cases of renal disease with uraemia—temporary improvement has been noted in the disappearance of nausea, headaches and improvement in the retinal conditions. Cushing and Brodley report a case of chronic nephritis with uremia in which they did a decompressive operation—although the blood pressure remained the same, and there was no change in the urinary findings, the headache, nausea and stupor disappeared and the choked discs were markedly improved. The interest in this from a medical standpoint is not the operation (which is probably the first one of its kind), but the added proof that uraemia is not due to the toxæmia per se, but to oedema of the brain. As Cushing says, "the difficulty at times of distinguishing between brain tumor, brain abscess, and cases of nephritis with cerebral symptoms must have been experienced by many. The identical ophthalmoscopic picture may be seen either in brain tumor or nephritis. The oedema in all three con-

ditions being the cause of the symptoms."

Thyroid Gland.—The treatment of Exophthalmic Goitre still is of definite interest. Beebe & Roger's serum in selected cases seems to be of definite value—Roger's own reports on all classes of Exophthalmic Goitre treated by their serum shows no better results however, than medical treatment has in the past. In cases of Grave's disease if hyperthyroidism was the only problem the solution might be easier, but there are hardly two cases of exophthalmic goitre which are seemingly identical—the symptoms are different and the pathological lesions different. Combined medical and surgical treatment with careful selection of suitable treatment to fit the different types of cases seems to be the future therapy of this disease.

In the beginning of this paper it was stated that 1908 had not been an epoch-making one. Perhaps it is better so; slow, sure, careful analytical work is better than brilliant spurts.

The question most important is, is medicine any farther advanced as the result of the work of the last year? We may answer this decidedly in the affirmative. Besides the scientific work done, the profession as a whole has had the chance at least to grasp fully the dangers of proprietary medicines and their producers.

The number of medical schools throughout the United States has decreased either by extinction or combination. State laws are becoming more stringent and better suited to the protection of the people. This is all gratifying and marks progress.

In the annoying form of nervous exhaustion, characterized by wakefulness from midnight to daylight, with desire then to sleep until late, not infrequently small doses of tincture of nux vomica will be found useful

FIGHTING AN UNSEEN FOE.*

THE TRUTH
ABOUT A
CITY'S BATTLE
TO CHECK
ASIATIC
PESTILENCE



HOW SAN
FRANCISCO IS
GUARDING THE
NATION'S
WESTERN
GATE

BY COLBY RUCKER, PASSED ASSISTANT SURGEON, UNITED STATES PUBLIC HEALTH AND MARINE HOSPITAL SERVICE, AND EXECUTIVE OFFICER, PLAGUE SUPPRESSIVE MEASURES, SAN FRANCISCO.

For nearly two years past, San Francisco, joining with the experts of the government's sanitary flying legion, has been fighting the battle for the nation against the invasion of oriental pestilence. The stricken city, rising bravely from the ashes of the disaster of 1906, roused itself to fight this unseen foe, and IT HAS WON. Certain eastern publications having printed sensational misstatements of facts concerning this campaign against the plague, *Sunset* has secured from first-hand sources the following terse, yet graphic, story of the fight, the victory, and the present plans of continued action. This article was written at the urgent request of this magazine. It is in no sense a voluntary defense of the sanitary workers—they need none—but a clear, straightforward statement of just what has happened. Much of picturesque interest has been omitted. The truth—not a long story—was desired. It makes good reading for all citizens who should know how the nation's western gateway is being zealously guarded. The health committee of San Francisco citizens has done its work, expending over \$180,000 subscribed for this purpose, but its men and women are still ready for action. Since Sep-

tember, 1907, the Federal Government has been spending from \$15,000 to \$30,000 a month in making this fight. San Francisco, old and new, has been scrubbed and brushed as no city was ever renovated before, until today the records show it to be undoubtedly the cleanest city in the world. Besides the stamping out of the pestilence the city's death rate shows a decrease in certain diseases as high as fifty per cent. And the campaign is to continue indefinitely, so long as this sanitary sentry duty seems necessary, the rigid inspection including not only San Francisco, but all of the nearby counties of Alameda and Contra Costa:

Certain cities and people have the quality of being indomitable, more highly developed than all others, and these are the cities and people that have shaped the history of the world. When San Francisco rose triumphant from the ashes of a great disaster all the world marveled at the spirit which would not down in the face of such reverses. Once again this city by the Golden Gate deserves the plaudits of the nation in its heroic fight against a pestilence which endeavored to force an entry through the Pacific gateway. This

*Courtesy of the *Sunset* Magazine.

fight has not been a battle for the safety of California alone but for the protection of the nation, and it virtually conquering and evicting this unwelcome visitor San Francisco has again shown itself indomitable.

The bubonic plague, that ancient enemy of man, had lain quiescent in its Chinese strongholds for many years, but in 1894, rousing into new life, it began its devastating march along the commercial highways of the world. Attacking each of the great seaports in

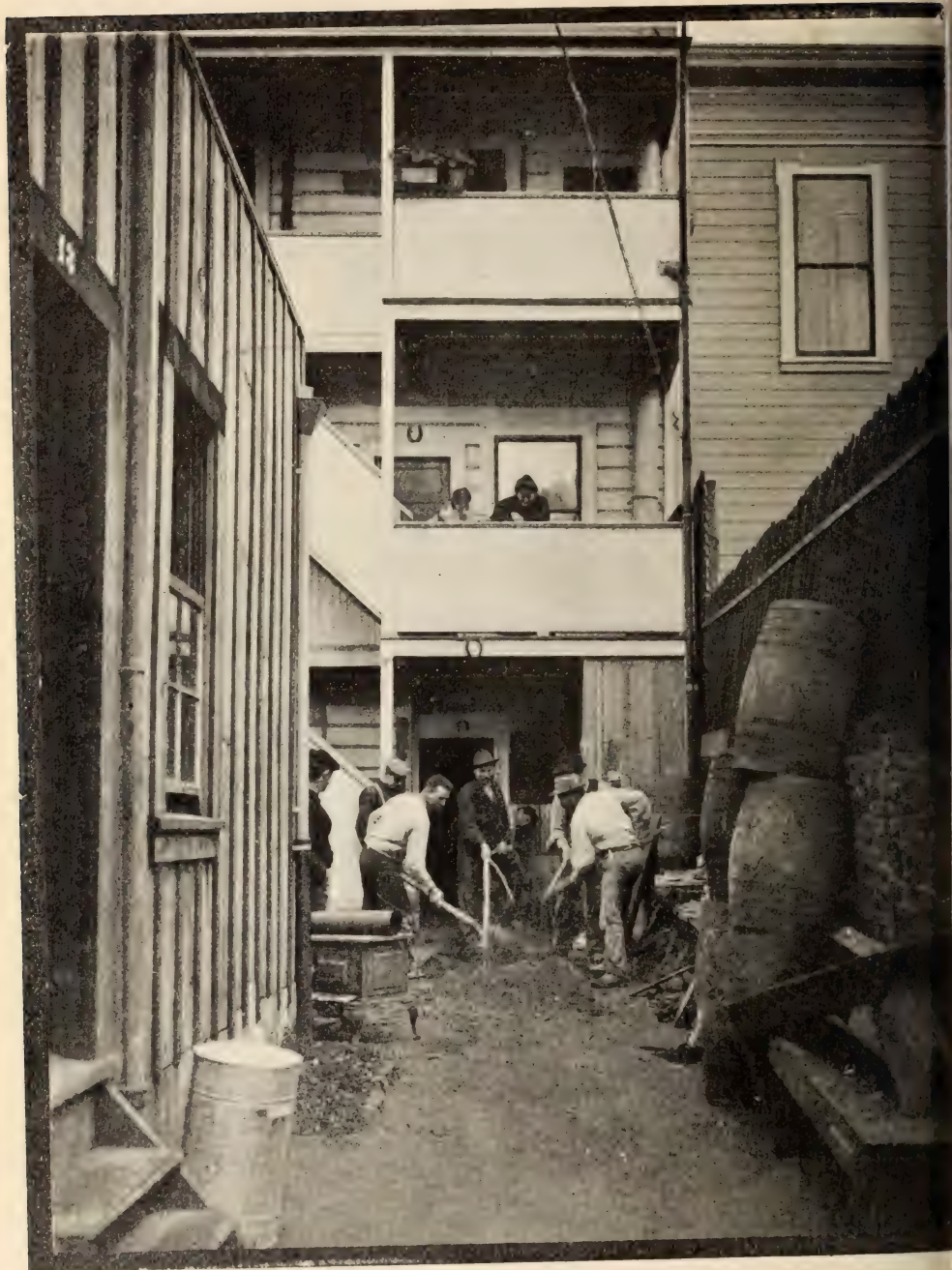
city officials realized that the problem was not a local one, but a matter of vast importance to all the nation. An invader had landed its forces upon our coast; the repelling of this invader was surely the duty of the general government. The President was called upon for aid. He recognized the obligation of the nation to protect the health of its citizens, authorized the expenditure of federal funds for this purpose, and directed Surgeon General Walter Wyman, the head of the Public Health



Passed Assistant Surgeon Rupert Blue, U. S. Public Health and Marine Hospital Service, in Command of the Plague Suppressive Campaign at San Francisco

turn, it touched San Francisco and was subdued only after a stubborn fight lasting over four years. From February, 1904, to May, 1907, sanitary peace reigned, and then the disease appeared again. No city can pass through a reconstruction period following great disaster and maintain intact its sanitary defenses. Taking advantage of this lessening of hygienic precautions, the pestilence moved slowly until August, 1907, when it began to choose its victims. By September of that year the

and Marine Hospital Service, to assume charge of the situation. Trained and experienced officers were hurried to the scene. The man chosen to command the campaign was the one who had stamped out the previous epidemic. This and his experience at New Orleans during the 1905 yellow fever epidemic, and as director of sanitation at the Jamestown exposition, particularly fitted Passed Assistant Surgeon Rupert Blue for the task before him.



Guarding the Nation's Health. At San Francisco the Citizens joined with the Federal Officers in the Campaign Against Plague-infected Rats. The People in This House have purchased a new Garbage Can One of 100,000 installed, and are concreting their backyard to render it Rat-Proof



r. Blue and Staff. Standing in Rear Row: Weyer, Woolsey, Howard, Prentiss, Thomas, Hopkins
 Standing in Second Row: Creel, Schmidt, Converse, Hurley, Rucker, Ffoulks
 Seated: Yogel, Stansfield, Blue and Fox

BEGINNING THE CAMPAIGN.

A hasty survey showed that the disease had appeared in many places in the city; it was not attacking only the orientals but whites, and legions of rats, the vehicles of its spread, ran rampant in unsanitary surroundings. Immediate, forceful, and well-directed action was demanded. An office was rented on Fillmore street—one of the new city's business centers—and there was located the headquarters of the commanding officer, and there the special laboratory, sent by rapid express from Washington, was installed. The city was divided into districts—thirteen in all—an officer placed in charge of each; men were hired; supplies and transportation furnished, and the army of sanitation took the field. The fighting units of this army were chosen from the ordinary wakes of life, trained in their duties as

inspectors, foremen and laborers. They soon caught the spirit and became most efficient field workers.

Until November 25, 1907, the government simply paid the salaries of its officers. After that date it assumed the expense of the entire force—at a cost aggregating about one thousand dollars a day—and since July 1, 1908, the entire cost of the campaign, for men, transportation and supplies has been defrayed, as a measure of national defense, by the federal funds.

WHAT IS THE PLAGUE?

The association of this disease with the Dark Ages and remote oriental countries has lulled many citizens into the belief that this æon-old scourge could never attack the New World, but now that the pestilence has begun its globe-encircling march it is well for all to know the nature of this exotic foe.



A Typical Rat-Proof Basement. Note the Pile of Lumber Suspended Above the Floor

Primarily an "epizootic" of rats only, and secondarily and accidentally an infection of man, this disease manifests itself in three forms: the bubonic, the pneumonic and septicæmic, the type of the disease depending on the route of entry of the invading germ. In the first it is received through the skin, caught up by the lymphatic circulation, carried to the nearest gland, where battle is given. The gland becomes red, swollen, hot and tender—a bubo is formed. The great preponderance of cases are of this type. Ordinarily seventy-five per cent. of persons thus attacked die, but in San Francisco the early discovery of cases and the application of modern scientific methods rescued fully fifty-two per cent. of these unfortunates. When the bacterium is taken through the respiratory tract pneumonia follows. This form is most lethal, but is fortunately very rare in America. Should the bacillus be in-

jected directly into the blood stream, the septicæmic form results—a form both rare and fatal.

THE DISSEMINATING FLEA.

Since the plague is a rodent disease and most commonly received by men through the skin, we must look for an infecting vehicle which attacks human beings through this means. Investigations pointed out the flea as this agent. It is found that these vermin, which infest rats in great numbers, not only carry the disease from one rat to another, and from rat to man, but also from man to man. With a full knowledge of these basic principles and a large experience in their practical application, Dr. Blue focused the campaign on the extermination of the rat and its parasites.

OPPOSITION AND OPEN ANTAGONISM.

The city, still dazed by repeated reverses, and only just staggering to its feet under the triple burden of disaster,



A District Commander Stopping the Erection of a "Non-Conformist" Building

strikes and much misrule, was unable at first to appreciate this movement or the honest motives which inspired it. The average citizens was too busy building the new city to be interested in anything so intangible as the sanitary situation. In some quarters pronounced antagonism and open opposition existed—an antagonism and opposition which any endeavor for better sanitation will arouse until the general public is educated to the necessity for hygienic reforms. But this did not deter the forward movement. The city government staunchly backed the fighters, the board of supervisors voted moneys, enacted ordinances, lent its moral support; the city board of health, an overworked and unsalaried body, was fearless in the condemnation of insani-

tary structures and other menaces to the public health.

SYSTEMATIC SANITATION.

Dr. Blue's men made a complete sanitary survey of the city, listed an accurate record of results, warned and prosecuted the offenders, inspected every dead body and every suspected sick person—the whole city was under surveillance. The captured rats were examined bacteriologically; places furnishing human or rodent cases were cleansed with levitical scrupulosity. By mid-November the battle was in full swing; the accurate strokes of trained veterans began to make their impress; the number of human cases began to lessen; the disease faltered, retreated, forced back by the relentless onslaught of the sanitary forces.



A Room Being Caked and Sprayed with Insecticide Solution and Fumigated with Sulphur



Modern Concrete Warehouses, Absolutely Rat-Proof, Have Replaced Infested Wooden Structures



Citizens Ripping Out Their Alleyway Preparatory to Laying Concrete

Every shot fired was carefully placed; the whole motive was accuracy—that accuracy which only long experience can give. But something was lacking, some one element was needed to bring the desired success. While the disease was on the decrease in humans, it was increasing among the rats. The situation was urgent. It was not enough to eradicate the disease from men. So

long as rats remained and had easy access to human habitations the pestilence would return each year to scourge the city. It was not the danger to human life alone which was to be feared—because it is improbable that the disease can ever reach the dread proportions here which it may in tropical climates. The great peril was the imposition of a disastrous quarantine



200,000 Rats Have Been Subjected to the Most Searching Examinations Known in Medical Science

by foreign governments—the practical closure of the port through ignorance and fear. The disease had disappeared from men, but its eviction was incomplete until the rats, the agents of dissemination, were forever driven out. This was not a work for one man or a collection of men, but for all the city, and the problem which lay before Dr. Blue was to arouse the citizens to

their danger to the end that the fullest co-operation might be secured.

EVERYBODY HELPS.

The federal health officers began a tour of the improvement clubs and similar organizations; a mass meeting was held and the mayor appointed the citizens' health committee. The chamber of commerce called a meeting and the governor, the mayor, Dr. Blue and others explained



Distributing Chloride of Lime to Kill the Rat Fleas

the situation—the danger to commerce and the terrific loss the city would sustain if foreign countries imposed the quarantine they were threatening. The great majority of citizens who “came to scoff, remained to pray.” The merchants enlisted for the war; every commercial body, trades union, club, religious and social organization in the city was called upon to join the fight; the press came into line; the courts became more stringent. The Southern Pacific Company alone gave thirty thousand dollars to the fund; its chief surgeon, Dr. Frank K. Ainsworth held the two largest meetings for the discussion of sanitation ever seen in America.

CORPORATIONS GIVE A LIFT.

Following this example the other corporations brought their employees together for instruction and contributed largely to the cause. The sum of one hundred and eighty thousand dollars was raised; the city awoke the sanitary renaissance accomplished. The garbage collection service, which was almost primeval in its simplicity, was re-organized; the city was soon after bonded for a new sewer system and a modern garbage incinerating plant; hundreds of insanitary structures were condemned and thousands placed in hygienic condition. The doctrine of plague and the crusade of “deratization” was preached from the pulpits, exploited in the press and taught in the schools.

The women’s clubs, civic and municipal bodies all joined the cause for a clean city. The commission merchants scoured their district and to prove the thoroughness with which their task was done gave a banquet in the streets.

“And the plague was stayed.”

SLAUGHTERED A MILLION RATS.

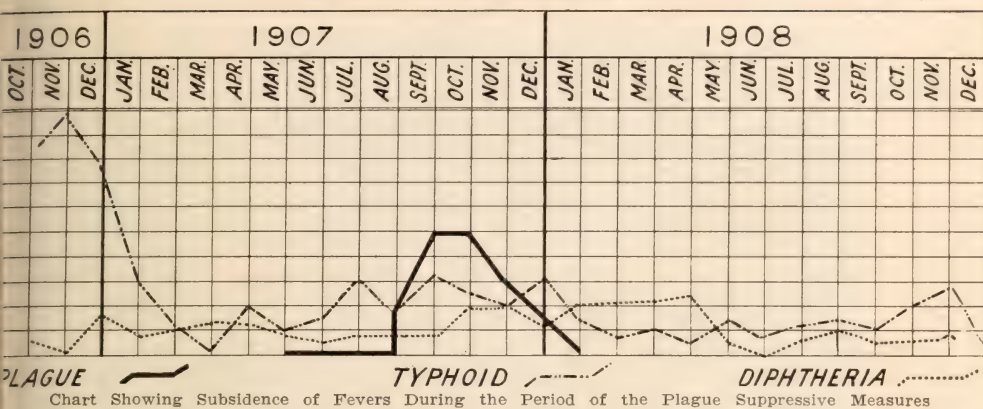
Statistics are dry things, usually, but it is interesting to know that during this campaign period 100,000 new garbage cans were installed, 6000 stables were made sanitary, fully 1,000,000 rats



In the
Warehouse
District
Hundreds
of
Insanitary
Structures
Were
Condemned
and
Demolished,
Leaving
Gaps Which
Are Being
Filled With
Rat-Proof
Buildings



A Man's House Is His Castle, But in San Francisco It Must Be
Kept Free From Rubbish



DISEASE	October			November			December			Jan.		Feb.		March		April		May		June		July		Aug.		Sept.	
	06	07	08	06	07	08	06	07	08	07	08	07	08	07	08	07	08	07	08	07	08	07	08	07	08	07	08
Typhoid.....	40	13	10	49	10	14	37	15	4	15	7	6	4	1	5	10	3	5	7	7	4	15	6	8	7	16	5
Malaria.....	3	0	1	1	0	0	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Small Pox.....	0	0	0	0	1	0	0	1	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles.....	2	1	0	2	1	10	6	2	1	4	2	6	3	8	2	3	2	3	3	6	2	3	3	3	3	1	1
Scarlatina.....	1	0	2	0	0	4	1	1	5	2	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping Cough.....	3	2	2	5	1	1	4	0	2	2	0	4	0	4	6	6	4	2	6	3	4	3	5	1	3	3	3
Diphtheria.....	3	10	3	1	10	4	8	6	6	4	10	5	11	7	11	6	12	4	2	3	4	3	4	5	4	3	3
Plague.....	0	24	0	0	12	0	0	7	0	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total.....	52	50	18	58	35	33	57	33	18	27	20	22	19	20	20	26	18	20	17	19	14	26	14	24	17	46	12

Comparative Table Showing Decrease in Deaths From Contagious Diseases During the Crusade for Cleanliness, Begun in October, 1906, and Still Maintained



The Fighting Units: Inspectors, Assistants, Foremen and Laborers of a Single District. The Work of These Combined Forces Accomplished the Remarkable Decrease in the Death Rate of San Francisco Shown in the Comparative Table Above



Citizens Rat-Proofing a Basement. 8,000,000 Square Feet of Concrete Were Laid

were slain and 8,000,000 square feet of concrete (permanent ratproofing) were laid. The death rate from contagious diseases has been cut in half; cases of typhoid have been similarly reduced and the city has been placed in a permanently healthy condition. The last case of the plague in San Francisco occurred upon January 30, 1908, and the disease among the rats has been wonderfully reduced. From July 28, 1908, to October 21, 1908, no infected rodents were found; after that date two diseased rats were discovered.

The fight still goes on, with fewer men of course, but with the relentless purpose to force all trace of the pestilence from the city and render its return an impossibility. Plague will never again attack San Francisco, for the citizens are too fully awake to the situa-

tion. They are on the sanitary frontier. The intimate connection of their city with the Orient and the vast shipping of the harbor make it necessary that a constant guard be kept if the health of the nation is to be protected. This duty the San Franciscans have assumed.

THE CLEANEST CITY.

Today San Francisco is the cleanest city of its size on this continent. The death rate, which has always been very low, has been reduced fully 30 per cent; the mortality from contagious disease has been reduced to the minimum; the health of all citizens has been well safeguarded, and the city's commercial position tremendously strengthened.

In thus interposing itself as a bulwark between the pestilence and the nation, San Francisco has brought down the

beratings of other cities which could not or would not understand the position. The situation was officially recognized and relentlessly combated. The future will show if the city's critics will enter the lists as fearlessly when the specter knocks upon their door. It ill behooves other cities to make any comments until their own condition is fully known.

LOOK OUT FOR THE RATS.

What San Francisco has done other cities should do. The plague is out up-

on its devastating march. Today it is moving up the Spanish Main and may begin its ravages upon our Gulf and Atlantic seaboard at any time. Sanitary defenses must be erected against this subtle enemy. The rats must be attacked if the nation would repulse the invader which "walketh in darkness and striketh at noonday."

And meanwhile, just remember that San Francisco won the nation's first battle.

SMALLPOX—ITS INITIAL STAGE.

BY I. R. BANCROFT, M.D., ASSISTANT HEALTH OFFICER, LOS ANGELES, CALIFORNIA.

The initial stage of variola is generally understood as the time from the onset of the first symptoms to the appearance of the specific variolous rash. The length and symptoms of this period are so variable that often there is no resemblance at all to the classic picture as presented by our text-books so that even a typical rash following a sickness bearing so little resemblance to the classic picture is mistaken. The length of this period is usually given as three days. This is usually true, but the following table of cases which have come under the writer's personal observation shows that only a little over half the cases had an initial fever of three days' duration.

TABLE NO. I.

Length of initial fever.	No. of cases.
3 days.....	231
2 days.....	111
4 days.....	74
1 day.....	21
None	7

Total No. of Cases..... 444

It is thus seen that seven cases could give no history of any initial fever at all, although probably some malaise ex-

isted, but none was noticed on most careful questioning.

The following tabulation of symptoms was made from 472 cases, mostly occurring in Boston, where the epidemic was severe, but some are from the mild type which occurs here in California:

TABLE NO. 2.

Symptom.	No. of cases.
Backache	234
Headache	255
General Pains	105
Nausea and Vomiting.....	175
Chills	122
Menstruation	10
Vertigo	76
Faintness	6
Cough	19
Sore Throat	14

From this table, it can be seen that the symptom of headache was more frequent than backache, and that neither occurred in a very large proportion of cases. Yet from an intimate association with the cases a general symptom complex can be constructed.

As a rule these cases had an abrupt onset, but sometimes it was preceded by several days of malaise and indefinite symptoms. A chilly feeling or a dis-

tinct chill was often the first indication of a disturbance of temperature. Immediately following the chill a rapid rise of temperature took place, and as a rule remained nearly at its original maximum height for about three days with very little daily remissions. The drop to normal was sudden as a rule except in the severe cases. This drop was definitely related to the appearance of the eruption so as a general rule the complete appearance of the eruption was accompanied by a complete absence of fever. Pain might be said to be the most constant symptom aside from fever. The pain was more often referred to the head and back, but was often general and indefinite. The backache was usually definitely located in the small of the back. Sometimes it was dull, but more often acute and steady. It sometimes radiated to the loins and down the thighs. In the more severe cases, it often continued after the complete appearance of the eruption and lasted for six or seven days. Sometimes backache was the sole symptoms. Headache, which was more frequent than backache, varied from an indefinite feeling of malaise to a severe agonizing and sharp pain. It was usually more severe than would accompany a similar temperature in other diseases, and was more often localized in the posterior and cervical regions. Often there was severe pain in the upper chest and between the shoulder blades, and sometimes deep hypogastric pains were present.

The infection acted as a profound intoxication to the nervous system. Even the light cases complained sometimes that they disliked to go to sleep because of the bad dreams that they had. Delirium was sometimes present, and at times lasted through the initial fever. Children sometimes had convulsions and vertigo was often marked, and at times was mistaken for alcoholic in-

toxication. Syncope in strong and ruddy persons also existed, and in several persons the power of speech was impaired. As a rule marked insomnia existed, but at times somnolence was present and patients were dull and stupid when awake.

Cough and sore throat appears as an accompaniment rarely, and nosebleed, at times severe, was occasionally present.

The tongue was usually covered with a thick yellow coat and the appetite lost. Nausea and vomiting was in a large proportion of cases, and constipation was the rule. In women, menstruation often took place out of time.

Physical examination during the initial period showed nothing abnormal as a rule. Sometimes, however, splenic enlargement existed, and rarely initial rashes appeared on the parts of the body which was subsequently free from the specific eruption. More often the face was suffused and red until the eruption appeared.

It can thus be seen that this most definite disease is often irregular, and that no diagnosis can be definitely made until the eruption appears.

In administering cider vinegar in poisoning by carbolic acid, be sure to give in large doses. A case reported by Bliss, of Deerfield, Mich., where patient had been given six ounces of olive oil with no effect, was moribund, sightless and pulseless. Whereupon the patient was raised up and not less than six ounces of strong undiluted cider vinegar was poured down him. In a half hour patient made some effort to swallow, and in an hour from first dose another dose of equal size was forced down him, as he refused, saying he wanted to die. From that time on patient made rapid and complete recovery. He had taken three-fourths ($\frac{3}{4}$) of an ounce of carbolic acid.

SOUTHERN CALIFORNIA PRACTITIONER

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EDITORIAL

THE THIRTY-NINTH ANNUAL MEETING OF THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA.

The meeting of the State Medical Society will this year be held at Hotel Vendome, beginning Tuesday, April 20, through Thursday, April 22.

The State Public Health Association will meet on Monday, the 19th; a meeting of all the public health societies of the State has been called for the afternoon of the 20th; and on Wednesday afternoon, the 21st, the California Association for the Study and Prevention of Tuberculosis will hold its annual meeting.

An excellent scientific program has been arranged, and in addition to the papers presented, there will be an extensive pathologic exhibit from both north and south of the Tehachepi; and

the California State Board of Health will have its traveling public health car on a near-by track.

The usual automobile trips will be given, and the meeting will come to a close with the banquet on Thursday evening.

To those who have not acquired the habit of attendance at the State medical meetings we would extend a plea that they change their mode of life, and add this experience to their pleasure and up-building.

In no other way can we benefit ourselves so much as by attending these meetings, thereby not only being relieved for a brief period from a routine of local existence, but also profiting by the fraternal and scientific intercourse with professional colleagues from other parts of the State.

You, far more than the State Society, are the loser, when you stay away from the annual meeting.

K.

A VISITING STAFF FOR THE LOS ANGELES COUNTY HOSPITAL.

After years, spent under the old system of no visiting staff, the Los Angeles County Hospital has at last adopted a new method, and henceforth its patients will have the advantage of systematic and constant observation by well-known physicians and surgeons of our city.

The new superintendent, Dr. C. H. Whitman, under whom this system will be tried out, has formulated some very excellent rules for the better management of the institution and we predict that if they be carried out in proper spirit, a more harmonious institution will be the result, and one in which patients, visiting staff, executive officers, supervisors and citizens as well, may take a just pride.

Dr. Whitman in his initial work has shown an excellent grip on the administrative and professional needs of the institution, and it is to be hoped that the members of the visiting staff will meet their own obligations to the institution and its patients, with equal success.

The opportunity has now come, and it is up to those who are identified with the Los Angeles County Hospital, to make good. THE PRACTITIONER'S best wishes for real and large success. K.

THE RECENT LEGISLATURE AND THE MEDICAL PRACTICE ACT.

The recent session of the legislature found the great mass of the profession, as usual, asleep or indifferent to the

vicious attempts to emasculate the law governing the practice of medicine in California.

That law, as we have stated on previous occasions, when we criticised its administration, stands for the protection of the people from incompetent and designing persons who would hold themselves before the public as properly qualified physicians and surgeons.

At one time, the passage of bill No. 1331, introduced by Senator Silver, had not the vote been reconsidered the next day, would have nullified all we have been working for these many years.

It would have opened the doors of reciprocity and flooded us with a horde of men from the East who are not able to stand an adequate test.

The State, at the present time, is demanding of the regular, homeopathic and eclectic medical colleges of California that they maintain high school standards for entrance and four years of professional training before their graduates are allowed to take the State Board examinations.

When students with such training fail, how can those with much lesser standards hope to pass? And particularly, since we deny our own residents the right to practice without examination, should we not in justice, deny those from other States the same privilege except under like conditions?

However, the Silver bill, after having passed the Assembly and Senate, failed, on reconsideration in the Senate, to pass.

The naturopathic bill passed both houses and secured the signature of the Governor and is now a law.

We do not know how this bill secured the sanction of the Council of our State Society, but it did, more's the pity.

As a result, the State Naturopathic Society has the right to demand that an indefinite number of naturopaths be licensed by the California State Board of Medical Examiners.

Not a word is said about the preliminary education, or professional training of these persons.

A curious spectacle this, wherein on the one hand, the University of California and Stanford are demanding two years of college work as a requisite for entrance into the study of medicine, and on the other hand, the State itself, giving to an unknown number of persons, without any regard to preliminary education or subsequent training, the right to hold themselves before the public as practitioners of medicine.

It is a lesson, a bitter lesson, and in one sense, the result of the lack of tact and care on the part of our present Board of Medical Examiners. That Board's indiscretions and ultra-theroretical standards, with the subsequent newspaper notoriety and criticism, played no inconsiderable role in paving the way for selfish lobbyists to act on members of the legislature, who from the lay press, had gotten a thoroughly prejudiced and mistaken idea of the true intent of medical legislation.

The nauseating pill must be swallowed. Let us hope it will gripe sufficiently to make us recognize the error of our ways, and be better prepared when the legislature meets two years hence.

HOW SHALL WE CHERISH AND PROTECT AMERICAN YOUNG WOMANHOOD?

On the evening of March 18th, Dr. Andrew Stewart Lobingier gave a dinner at the California Club to which were invited a number of Los Angeles medical gentlemen to meet three of America's noted men of the surgical profession. These three guests were Dr. Albert A. Vander Veer, of Albany, N. Y., Dr. Joseph M. Mathews of Louisville, Ky., and Dr. J. B. Murphy, of Chicago.

As local guests, outside of the medical profession, were the Rt. Rev. Bishop Conaty and Dean MacCormack. Bishop Johnson was absent because of a former engagement, but sent a most beautiful letter, which will be referred to and inserted later.

After the dinner, Dr. Lobingier, in a few well chosen words of recognition concerning the work of each of the three eastern guests, announced that the subject, "How Shall We Cherish and Protect American Young Womanhood" would be the theme for after dinner discussion.

Dr. Vander Veer responded to the subject, "How Shall We Teach Young Men and Women What They Should Know Before Marriage?" Dr. Vander Veer went over at some length the history of pelvic surgery, and how from it had gradually developed the truth that we find staring us in the face today concerning the great mortality arising from pelvic infection in the female as the result of gonorrhea. He spoke of the enormous amount of work that comes to the surgeon in which many lives, which formerly were sacrificed, are now

saved through surgical procedures, many of which necessarily prevent conception by sacrificing the female organs of generation. He also spoke of the great amount of resultant suffering; the women though left alive oftentimes going on to lead lives which are not only unproductive, but in many instances lives of more or less chronic invalidism. He emphasized the fact that while surgery has done much, yet the cause of this surgery was one of the pitiable and deplorable conditions that the medical profession must necessarily face. Through education and publicity of facts the young men and the young women must come to realize what all this means toward the destruction of domestic happiness and thus the destruction of the home.

Following Dr. Vander Veer came the talk of Dr. Mathews on "The Disastrous Consequences Resulting from a Lack of Knowledge on the Part of Young Womanhood."

Dr. Mathews, after speaking of the consequences, brought up the subject of how this deplorable condition is to be prevented from continuing. He spoke of gonorrhea and syphilis as the great "black plague" in contrast to consumption, as the great "white plague." He spoke of the enthusiastic work that is now being advanced all over the world because of the publicity that has been given to the facts concerning tuberculosis as they exist. He felt that the time is now ripe to deal with gonorrhea and syphilis in the same manner, i. e. by publicity. That while heretofore the matter has largely been advanced by the medical profession only, the time has

come when it must be approached through the lay press and the pulpit.

He felt that we, as physicians, are not doing our duty to the public unless we make a crusade against gonorrhea and syphilis in much the same manner as the crusade is being made against tuberculosis. He felt that it is not enough for medical men alone to be aware of the fact stated by a noted specialist of New York City, and generally accepted by the profession, namely, that 80 per cent of the young men of that city had some time in their lives contracted gonorrhea, and that many of them are uncured and capable of transmitting the disease at the time of marriage. He said, "If this holds true in New York then it is true of Chicago, San Francisco and likewise of Los Angeles."

Dr. Mathews thinks that publicity even is not enough and that we must go farther than this, and have enacted a law whereby every man who wishes to secure a marriage license must present himself to a committee capable of passing upon the subject and procure a clean bill of health. He feels that the matter must eventually come to this in order that we may protect our sisters and daughters from infection which in many cases means more than death. He then went on to speak of the fact that is well known by the medical profession, that these diseases are distributed not through the houses of prostitution so much as through other channels. He spoke of the fact that is well recognized, that the prostitute for her own protection and the protection of her business has learned how to steer clear of these infections, while it is from the great

mass of clandestine liaisons that the infection takes place.

Dr. Mathews spoke of the fact that in one of Chicago's largest department stores where no less than 1100 young women were employed, it had been estimated that 85 per cent of these same young women can not and do not support themselves from the wages received, but that this high percentage are kept by the opposite sex. He says, "If this percentage holds good in a large department store in Chicago, why should we expect different conditions existing in other cities. He feels that the public must come to recognize this source of infection as does the medical profession, and that it is only when this publicity is given to the matter that the results can be accomplished.

Dr. J. B. Murphy then spoke on "Observations from an Active Surgeon's Life." After complimenting the former speakers in a pleasant way, reminding them that they had pretty well covered the ground which had been allotted to him in the discussion, Dr. Murphy spoke at some length concerning the work that had been done in Chicago in educating the public along the lines of public health, embracing to some extent the subject at hand, tuberculosis, typhoid infection and other public health matters. He mentioned the fact that some five years ago the medical profession of Chicago instituted a series of health talks to be given Saturday evening; that at first the talks were given to practically empty halls; but that now, after the subject was becoming better understood by the public, the health talks on Saturday evening are a source of so much

interest that it is with difficulty that halls large enough to accommodate the numbers can be secured.

Dr. Murphy also mentioned the fact that at first there was a feeling among the profession that some medical men were trying to gain notoriety and advertisement through this line of work, but that at present this feeling had entirely disappeared, and the profession is now able to view the matter in the proper light. He believes fully that this subject which Dr. Mathews terms the great "black plague" will be worked out fully and satisfactorily in time. He is convinced that it must go through the same stage as small-pox, diphtheria, scarlet fever and appendicitis. The opposition to publicity, quarantine and general prevention of many of these diseases has been a difficult matter to overcome, but it has been worked out. So it will be with gonorrhea and syphilis. Just how and when it will be accomplished, time alone can tell. That Dr. Mathews' idea of publicity and possibly legislative features are along the right line he has no doubt.

Dean MacCormack spoke on the subject, "What Can the Clergy Do to Aid the Medical Profession." He said that this matter came very close to his heart, largely because of the fact that he has a son and daughters. He gave a very earnest talk, and said it was a matter to which he had given a great deal of attention. He spoke of the fact that he had previously said from the pulpit that mothers should ask the solicitor of their daughter's hand to go to her family physician and procure a clean bill of health. He had therefore been advocating

through the medium of his pulpit the same line of work which the previous speakers had been suggesting.

Dean MacCormack further believes that co-education is a mistake, that the familiarity of the sexes which surrounds the association of boys and girls, young men and young women in educational institutions is oftentimes productive of much harm. He noted the fact that it had been reported in the Pasadena schools where, because of his former location, he had much opportunity to observe conditions, there had been six pregnancies in school girls in one year. A long argument surely for segregation of the sexes in educational matters. He spoke of these being hard facts for the public to know, but nevertheless the public could not or would not correct them until they become matters of general recognition.

I regret that space does not permit more extended remarks concerning Dean MacCormack's talk, as it was one of the most delightful of the evening, and loaded with valuable suggestions from beginning to end.

The last speaker of the evening was Bishop Conaty. The talk was a masterful one calling attention to the fact that while the duty of the priest is supposed to be largely along spiritual lines, yet really the matter of morality and his influence in this direction naturally and necessarily consume much of his time. He felt that some of the medical speakers of the evening when they doubted whether the real status of affairs was known by the priesthood had stopped to think of the full scope of the work cov-

ered by the clergy. That while the latter might some time necessarily be wanting in the knowledge of some of the technical terms and exact manner of transmission of infections, they nevertheless had a general knowledge of conditions as they exist, and from time immemorial had tried to combat these conditions in a sane and humane manner.

The Bishop spoke of the influence of the confessional where a life of spiritual blessing was necessarily a concomitant, and dependent upon a life of purity in the individual. The question of marriage between certain individuals was a matter that to a certain extent had been taken out of the hands of the priest. If he declines to marry a couple, they then resort to the civil court or go to other denominations.

The danger to society through these infections is well known by the priest. His effort is strongly thrown into the endeavor to combat the danger, and he is willing to aid the medical profession and clergy of other denominations to help stamp out the great "black plague." Bishop Conaty's talks, as always, was clear cut, decisive, inspiring and indicative of a broad mind and deep sympathy with humanity.

The account of the evening would be incomplete without without inserting the letter of Bishop Johnson to Dr. Lobingier.

I regret that the sentiments of the other speakers could not have been written and placed so beautifully before the reader of this article as it is possible to place those of Bishop Johnson.

"BISHOP'S OFFICE, 523 S. OLIVE ST.,

"Los Angeles, Cal., March 18, 1909.

"MY DEAR DR. LOBINGIER:—

"I am exceedingly sorry that I cannot be with you tonight, but as I told you the other day an imperative engagement of many weeks standing makes it impossible for me to accept in person your invitation. However, I am asking Dean MacCormack to represent me at the dinner and he has kindly consented to do so.

"I appreciate most thoroughly your courtesy and nothing would give me greater pleasure than to be able to meet the three distinguished guests of the evening. We may almost regard Dr. Murphy as a fellow citizen, he being such a frequent visitor to California. In fact I am inclined to believe that it is about time for us to claim that distinction. Dr. Mathews can hardly feel that he is a stranger upon this coast where so many other Kentuckians have brought their Lares and Penates and have made their home. Dr. Vander Veer living as he does at Albany, sixteen miles from Schenectady—my birthplace—from my own point of view seems to come from the center of the universe.

"Will you not express to these gentlemen my gratification that they have consented to speak upon the important subject concerning which you and your guests are to confer. The physician and the clergyman should be upon the closest terms of intimacy in the consideration of such problems as these by which we are confronted in the present day. I happen to number among my friends a great many medical men and I am quite sure that most of them are as

deeply concerned about the moral aspects of the question which you are presenting for consideration as are the men who are engaged in the work that I am. It has always seemed strange to me that Americans should be unwilling to face facts frankly and as frankly to admit existing evils and with the same frankness undertake to eradicate them. I am not quite sure but that the charge made by those who have viewed us as a nation from the outside is a correct one. It has been said that 'the American prefers to say the pleasant rather than the right thing if the right thing irritates or arouses discussion.' However, whether that be true or not I do know that average fathers and mothers are unwisely optimistic and that they are unwilling even indirectly to imply that their own children either need instruction or by any chance may go astray. In view of this fact to my mind the obligation seems to be laid upon those of us in the community who want to stand for the truth at all cost, to speak, and to speak definitely, about all matters that relate to sexual and social questions.

"May I not say that I deprecate any movement which may serve to confuse the work which the clergyman and the physician have to do both in the interests of the cause which will be considered this evening and of the physical welfare of the community at all times. Certainly I do not feel that as a clergyman bearing, it is true, a distinct commission to heal the sick, I am justified either directly or indirectly in implying that my work is identical with the work of the physician. Presumably the physician has been a student of all matters

that nearly or remotely relate to the human body. We may assume that as such he is familiar with diseases and their remedies and that his knowledge fits him, and him only, to deal at first hand with the body and its ailments.

"But while admitting so much as this I think that the physician should also recognize that many of the causes of physical ills lie within the sphere in which the clergyman, if he be true to his calling, may have a most decided influence. The clergyman should be regarded as a co-laborer by the men who have the physical welfare of the race at heart. He should be able under God to create conditions which will make it possible for the physician to do his best work. If the religion which we profess be true its influence should be such as to bring the minds and wills of men into harmony with the Divine Will and in-so-far as it is able to do this it will be effective in producing men who are strong in soul, in spirit, and therefore men who because they are strong in soul and spirit are likely to be strong in body as well. The Christian religion because it teaches as a principle the sanctity of law does not differentiate between the spheres in which laws are operative and the wise clergyman will invariably seek to create an ideal which

is the embodiment of perfect spiritual, mental and physical health; and if he is true to that as he speaks to the young men and the young women committed to his charge; if he keeps that ideal in mind by the bedside in the sickroom, may I not claim for him a position which no one more readily than the physician ought to be willing to accord? That is the ideal in my own mind; it is the ideal which I seek to inculcate as I touch co-workers in the ministry, and it is the ideal dominating in my own thought wherever I am brought into touch with the lives of other men.

"With many thanks for your courtesy and with cordial regard to the gentlemen present, believe me

"Very sincerely yours,

(Signed) "JOSEPH H. JOHNSON."

The guests of the evening aside from those mentioned were as follows: Drs. Walter Jarvis Barlow, W. W. Beckett H. G. Brainerd, Stanley Black, E. A. Bryant, George L. Cole, P. G. Cotter, Walter Lindley, Al L. Macleish, R. P. McReynolds, James McBride, M. L. Moore, Charles B. Nichols, John Y. Oldham, J. T. Stewart, Henry H. Sherk, William LeMoynes Wills, John R. Haynes and F. M. Pottenger.

G. L. C.

EDITORIAL NOTES

Dr. W. C. Richards has opened an office at Rhyolite, Nevada.

Dr. E. T. Hall is located at Fullerton, Orange County.

Dr. H. L. McNew, of Rawhide, has gone to Pioneer to locate.

Dr. W. H. Kiger has transferred his practice from Ocean Park to the city of Los Angeles.

Dr. J. H. McKellar lectured last month before the young men of the Pasadena Y. M. C. A. on the care of the eye.

The Seventh Day Adventists propose to start a medical college near Redlands.

Dr. A. W. Vanneman, who was a well-known practitioner in Hermosillo, Mex., is located in Douglas, Ariz.

Dr. Rose Bullard of Los Angeles has been spending three months in Chicago hospitals.

Dr. W. P. Murray has removed from Caliente to Pioche, where he will engage in the practice of medicine.

Dr. W. W. Beckett, of Los Angeles, has been elected medical director for the Pacific Mutual.

Dr. M. M. Kay, for two years physician in charge of the Glendale Sanitarium, has located in Artesia.

Dr. Goodfellow, surgeon of the Southern Pacific, was recently in Los Angeles.

Dr. E. Henderson, who has been absent from his home in Pomona for two years, has returned and resumed practice.

Dr. F. M. Pottenger of Monrovia will commence the erection of a new \$15,000 residence immediately on his return from Europe.

Dr. George P. Sampson of Winslow has been appointed County Superintendent of Public Health of Navajo County, Arizona.

Dr. Frank C. Wiser of Phoenix will leave shortly for Denver where he will open offices for the practice of his profession.

Drs. F. M. Pottenger and C. C. Browning are now located in the Union Trust Building, corner Fourth and Spring streets, Los Angeles.

Dr. A. J. Rosenberry of Jerome and Dr. J. M. Pearson of Camp Verde were elected members of the Yavapai County Medical Society at its last meeting.

Dr. T. E. Enloe, one of Goldfield's pioneer physicians and prominent mining men, has gone to Nashville, Tenn., where he will reside in the future.

Dr. Robert Day was recently infected while dressing a wound at the Los Angeles County Hospital and was very ill at the California Hospital, but is now convalescent.

Dr. Frank Rattan of Martinez, Cal., was called to Los Angeles March 15 by E. H. Harriman, the railroad king, to attend a member of his party who was ill at the California Hospital.

Dr. J. A. Massie of Santa Fe, N. M., was thrown from his horse and his collar bone was broken. He was taken to his home on Palace avenue where his injuries were attended to.

Dr. Titian J. Coffey and Miss Eva E. Keating of Los Angeles, were married by Bishop Joseph H. Johnson on March 30, and left for a touring trip through the State immediately after.

Dr. C. F. Taylor, editor of *The Medical World*, dips into politics now and then, and this is an extract from his comments on the retirement of Theodore the Strenuous:

Dr. E. S. Bullock, Wayne Wilson and Mr. Foster of the Cottage Sanatorium, recently spent several days shooting duck on the lower Mimbres and returned with a long string of birds.

The Imperial Valley Medical Society has chosen as its delegates to the State Medical Society meeting at San Jose, on April 20, Dr. Bumgarner of Imperial, Dr. Brooks of Holtville, and Dr. Peterson of El Centro.

Dr. John C. Hollister of 4571 Oakenwald avenue, Chicago, has been taking a winter vacation in Pasadena. Dr. Hollister is a graduate of the Northwestern University Medical School and is surgeon to St. Luke's Hospital.

Drs. F. C. E. Mattison, Stanley P. Black and George H. Kress of the Public Health Commission of the State Medical Society recently gave public health talks before the Shakespeare Club of Pasadena.

The Maricopa County Medical Society entertained its members and friends at an elaborate banquet on the evening of April 3. Several prominent Eastern physicians were present and delivered addresses.

A report of the work done by the Monterey Hospital and Free Dispensary during the past five years has been prepared by Dr. C. B. Hanson, and it is very gratifying one. The report goes to the Methodist church conference.

The Stork has been particularly kind to Phoenix physicians of late. On February 26 he presented Dr. and Mrs. E. Payne Palmer with a bouncing boy, and, apparently to display his versatility, he left a baby girl at the home of Dr. and Mrs. O. E. Plath on March 5.

The American Proctologic Society will hold its eleventh annual meeting at Atlantic City, N. J., on June 7 and 8, 1909. The headquarters and place of meeting will be at Haddon Hall. The profession is cordially invited to attend all meetings. An interesting program has been arranged.

The Supreme Court has granted a new trial to Dr. R. S. Lanterman, former Coroner of Los Angeles County, thus affirming the decision rendered some time ago by the Second District Court of Appeals. It is considered doubtful whether the defendant will ever be subjected to a second trial.

Dr. H. O. Bates, one of the best-known physicians of Southern California, was removed to the Good Samaritan Hospital on March 26 for a delicate operation on his left eye. While reading, a blood vessel broke in Dr. Bates'

eye, causing the total blindness of that organ. Dr. Bates is a brother-in-law of Senator Scott of West Virginia.

Capt. Clarence LeR. Cole, U. S. Army Corps, has been transferred from Fort Thomas, Kentucky, to Fort Whipple, Arizona. Capt. Cole formerly had charge of the army bacteriological laboratory at Manila, P. I., and is a welcome addition to the medical profession of Arizona.

At the annual meeting of the Santa Cruz County Medical Society held in Nogales, March 8, the following officers were elected: President, A. L. Gustetter, Nogales; Vice-President, P. R. Doran, Patagonia; Secretary-Treasurer, A. C. Kingsley, Nogales; Delegate to the Arizona Medical Association, V. A. Smelker.

Los Angeles will soon have a new Receiving Hospital at First and Hill streets. There will be a model operating-room and everything to aid in doing justice to the patients who are brought there. The present hospital staff consists of Chief Surgeons Quint and Garrett, and Surgeons Bonyngge, Wiley and Wright.

Dr. W. S. Mortensen of the Palms, near Los Angeles, was shot and wounded in the right thigh by "hold-ups" on the evening of February 24. They robbed him of \$10 and his gold watch, and left him in an unconscious condition. For several days his condition was serious, but now he is able to attend to practice again.

After an illness of three days, Dr. H. K. Macomber died March 23 at his home, 414 West Colorado street, Pasadena. The cause of his death was acute pastritis, complicated by an attack of heart trouble. Dr. Macomber, who is very well known in Pasadena, was sixty-six years old, and a native of Shelburn Falls, Mass. He came to Pasadena in 1878, seeking health.

Dr. William F. Waugh, 1424 East Ravenswood Park, Chicago, writes:

"Editor SOUTHERN CALIFORNIA PRACTITIONER:—I am collecting material for a paper upon atropine as a hemostatic, and would be obliged to any of your readers who would send me notes of their experience with this remedy. I am particularly anxious to receive adverse reports, as well as those favoring the remedy."

Dr. D. B. Van Slyck of Pasadena is 81 years young, and has just closed his fifty-eighth year of practice. He is retiring from active work and will sell his office equipment at a very reasonable figure. Here is an excellent opportunity for a young physician to get a cheap outfit, and at the same time make the acquaintance of Pasadena's most delightful octogenarian youth.

A good practice for sale in a fine community. See ad. under Therapeutic Hints.

Through the timely efforts of the ever alert secretary of the Maricopa County Medical Society, Dr. Francis H. Redewill, the Mexican population of Phoenix have been deprived of the services of Dr. R. Cabanes, who had neglected to observe the formality of obtaining a license to practice. Dr. Cabanes was arrested for violation of the medical practice act, and released on a bond of \$50. Before the case came to trial the doctor decided to take a trip to California, and is now said to be in San Bernardino.

To set at rest unfounded and alarming reports which have been circulated during March concerning Dr. D. K. Pearsons, the millionaire Chicago philanthropist, Dr. H. B. Stehman, of Pasadena, stated that there was no cause for alarm. Dr. Pearsons is resting comfortably at the hospital, where he will remain for some time, Dr. Stehman says. He is doing as well as was expected, when his age of eighty-nine

years is taken into consideration, and his physicians have no reason to be dissatisfied with the progress he is making.

Dr. Daniel W. White of the U. S. Indian Service has forcefully drawn the attention of the Department of the Interior at Washington to the prevalence of trachoma among the Indians of the Southwest. So successful, indeed, has Dr. White been that the U. S. Government has appropriated \$12,000 for the Phoenix Indian School to fight trachoma. The government will build a trachoma hospital in connection with this school at once, and Dr. White expects two physicians and a number of nurses from Washington to assist him in this work.

In a lecture before the Forum Club of San Francisco, Dr. Annie G. Lyle told the members that of all professions medicine is the most essentially feminine. She declared that among all the primitive races women were the physicians, and for centuries women did all the medical work. Dr. Lyle took up the three arguments most often advanced against woman in medicine—lack of physical strength, inefficiency of intellect and decorum, indelicacy and immorality—and declared that these objections were founded on ignorance. She asserted that 12 per cent. of the doctors of San Francisco were women.

"Roosevelt is the *only* President we have had in *my* memory who made any *effort* that anybody ever knew of to promote the interests of the masses of the people as against the powerful corporations and combinations of capital that have held high carnival for so many years. He is the only President in my memory who has dared to oppose these great combinations. His messages have been bold pronouncements that carried dismay to the powerful combinations, and they have been a moral tonic to the masses of the people, and have

given courage to many a weak backbone."

The findings of the civil service commission on March 23, in the case of Dr. E. H. Wiley, assistant police surgeon, were the same as those practically agreed on at a meeting of the commission last week. The commission found that the charges of gross negligence in the treatment of Harry L. Hathaway were not sustained, but the findings included a little censure because Dr. Wiley did not follow his first impulse and put Mr. Hathaway to bed, instead of sending him to the tanks, where he remained for an hour.

By vote of the Supervisors the positions of all internes at the County Hospital—eight in number—were declared vacant, the order to take effect April 1. This order was made on recommendation of H. D. McCabe, chairman of the County Hospital Committee of the Supervisorial Board. To fill the vacancies, the new superintendent of the County Hospital, Dr. H. C. Whitman, was empowered to make temporary appointments, thus allowing him to select his staff of assistants for the present. Permanent appointments will be made by the Supervisors in July or August, when there is a new crop of graduates from Los Angeles medical schools.

On Saturday evening, March 27, the majority of the physicians of Santa Fe county, New Mexico, met at the Palace Hotel and organized the Santa Fe County Medical Society, which will become a part of the New Mexico Medical Association which in turn belongs to the American Medical Association. After informal discussion, the following officers were elected: Dr. W. S. Harroun of Santa Fe, President; Dr. Yocum of Cerrillos, Vice-President; and Dr. James A. Rolls of Santa Fe, Secretary and Treasurer. The society will meet once a month at Santa Fe for

discussion of medical subjects and incidental business. The organization is bound to prove of much benefit not only to the medical fraternity, but also to the community.

A series of medical talks will be given at the Y. M. C. A. gymnasium, by several prominent physicians of Pasadena, on Thursday nights. The speakers will address the members of the senior class in the gym, dressed for the gymnasium class. Only a partial list of the physicians who will speak can be given at the present time, as Dr. B. C. Atterbury, who is arranging for the talks, has not been able to see all the men as yet. Those who have already consented to give their services are as follows: Dr. J. H. McKellar, on the "Eye;" Dr. W. H. Roberts, on the "Ear and Throat;" Dr. Charles Lee King on the "Lungs;" Dr. Henry Sherry on the "Care of the Skin;" Dr. G. E. Campbell on the "Heart," and Dr. George Abbott, who will close the series, May 6, with a talk on "True Manhood."

On April 1, Dr. C. H. Whitman, the new superintendent of the Los Angeles County Hospital, appointed the following-named internes under the resolution adopted by the board: Drs. Anders Peterson, C. E. Atkinson, James Vye, Frank Kidder, Herbert A. Rosenkranz, R. D. Duncan, H. G. Ford and V. R. Townsend. Of the new men, Dr. Atkinson is a practicing physician, Drs. Peterson, Vye and Kidder were chosen from the senior class of the College of Physicians and Surgeons, and the others were selected from the senior class of the College of Medicine of the University of Southern California. It is understood that the appointments are only temporary, and that the Board of Supervisors will make permanent selection later in the summer. The board claims that the action taken by that body was only the last resort in an at-

tempt to preserve discipline among the attaches of the County Hospital.

An Associated Press dispatch from Sacramento, of date April 4, gave the following interesting information:

Comparisons with the two previous years as they appear in a report filed today by State Statistician George D. Leslie show tuberculosis is on the decrease, while heart disease is on the increase. In 1908, as in previous years, tuberculosis was the principal cause of death in California, though last year heart disease and kindred ailments made a very close second.

Of the 31,287 deaths in the State in 1908, those from various forms of tuberculosis totaled 4565, or 14.6 per cent. of all, as compared with 14.8 per cent. in 1907, and 15.1 per cent. in 1906. The deaths from diseases of the circulatory system were 2987; diseases of the digestive system, 2811; Bright's disease, 1797; cancer, 1737; infectious diseases, 1636.

The leading epidemic diseases were typhoid fever, 540; diphtheria and croup, 397; whooping cough, 149. There were 760 deaths from suicide, against 608 in 1907.

There were proportionately more deaths in 1908 than in 1907 from cancer, and from diseases of the digestive system, but fewer from the diseases of the nervous and respiratory systems.

Dr. Walter Lindley left yesterday for New York, whence he will sail on April 1 for Europe. He goes with letters to leading surgeons in Paris, London and Edinburgh, and will investigate all that is new and desirable in hospital equipment in the Old World.

Dr. Lindley has been appointed by the Governor of California and the State Board of Charities to report on the methods of industrial schools and reformatories of Great Britain; he also goes as representative of the board of managers of the New York State Char-

ities Aid Association, of which Joseph H. Choate is president, to secure information in regard to the care of dependent children.

Dr. and Mrs. Lindley will be in Stratford-on-Avon the week beginning April 19, which is designated as "Shakespeare's Birth-week," April 23 being his birthday. They will return to America in time for the doctor to read a paper before the National Conference of Charities and Correction, which meets in Buffalo, N. Y., June 12. His subject will be: "Educational Methods in the Industrial Schools of Great Britain."—*Times*, March 21, 1909.

"No operation shall be performed in the County Hospital until the patient, or some one qualified to act for the patient, gives his or her consent in writing for the operation," was the order issued by Dr. C. H. Whitman, the new superintendent of the Los Angeles County Hospital on April 1.

"Henceforth," said Dr. Whitman, "there will be no operations without the consent of the person on whom the operation is proposed.

"I will conduct the hospital so as to give the best treatment possible to the patients—and the best return to the taxpayers. I can not predict in detail what reforms will be made, but there are some things that I will change at once.

"The internes will be under the direction of the visiting staff. The house physicians will direct them during the absence of the staff physicians.

"The internes must not leave the hospital without permission and will not be allowed to perform major operations.

"In the case of impending death to any patient, the head nurse will be required to notify relatives and, failing to find them, she must call a minister.

"No interne or externe will be allowed to have a patient in the hospital and charge for treatment."

The Los Angeles Graphic prints the following interesting item:

"My compliments to Dr. Walter Jarvis Barlow, dean of the Los Angeles College of Medicine, through whose efforts the institution lately affiliated with the University of Southern California, has been consolidated with the State University at Berkeley. The secession was accomplished without friction; in fact, the board of trustees of the local university co-operated with the faculty of the medical college in effecting the new alignment, realizing that the trend of modern medical education, as well as the public health interests of California, made the northern affiliation desirable. The title of the school now changes to the College of Medicine of the University of California. The standard of admission is to be raised next year, requiring applicants to present credentials showing at least two years in a college of liberal arts in addition to four years of high school only, heretofore demanded. In this connection it is interesting to note that the donation by Jackson A. Graves of twenty thousand dollars to remove a debt of that amount incurred by the medical college in erecting the clinical building has materially aided the transfer to the State University. The gift by Mr. Graves is in the nature of a memorial to his son Selwyn, a former student of the college, who, it will be remembered, met a tragic death under a Southern Pacific freight train in this city a little more than a year ago. It is fitting that the directors of the college clinic association have decided the building shall be known hereafter as the Selwyn Emmett Graves Memorial Free Dispensary. Mr. Graves pays a tender tribute to the lost son in an interesting sketch of his all too brief career in the March number of the SOUTHERN CALIFORNIA PRACTITIONER."

Under the caption "Hospital Staff Enlarged," the *Los Angeles Express* of April 5, printed the following:

As a direct result of the friction at the County Hospital between the recently discharged staff of internes and the visiting staff of physicians and surgeons, Dr. C. H. Whitman, new superintendent, has drawn up a list of rules and regulations prescribing the duties and powers of the internes and visiting physicians.

At the same time, he has clothed the visiting staff with official authority by reorganizing and enlarging the staff and having the list approved by the Supervisors.

The new visiting staff, as approved by the Supervisors and the hospital superintendent, is made up of the following physicians and surgeons:

Department of Surgery—George W. Lasher, D. C. Barber, O. O. Witherbee, W. L. Willis, J. H. Seymour.

Department of Medicine—W. Jarvis Barlow, D. J. Frick, S. Gwaltney, T. B. Wright, Joseph King, Dudley Fulton, Charles E. Zerfing.

Department of Obstetrics—T. J. Coffey, W. S. Johnson.

Department of Gynecology—W. W. Beckett, Carl Kurtz, Charles W. Bryson.

Department of Mental and Nervous Diseases—H. G. Brainerd, Ross Moore, James T. Fisher.

Department of Tuberculosis—George H. Kress, H. Herbert, J. Allen.

Diseases of the Eye—H. Bert Ellis, T. J. McCoy.

Ear, Nose and Throat—Hill Hastings, W. L. Zuill.

Department of Skin Diseases—Granville MacGowan.

Orthopedic Surgery—Joseph Kurtz.

Pathology—Stanley P. Black.

The new rules for the government of the hospital, arranged by Dr. Whitman

and adopted as official by the Board of Supervisors, have been printed in book form.

The *Goldfield Tribune* of March 28 states that judgment was rendered yesterday in favor of Dr. George S. von Wedelstaedt against the county of Esmeralda for the sum of \$85. The award was made by Justice Henley after a brief hearing. The physician testified that he had attended Vincent St. John last November, and also gave evidence showing that he had given his services in several other cases. All of these cases were of an emergency character, according to the plaintiff, and he asserted that he had a right to demand fees from the county. Dr. von Wedelstaedt referred to the case of Dan Tennant, who was shot in the leg and who would have bled to death as a result of a gunshot wound had it not been for prompt medical attention. The district attorney, Augustus Tilden, made inquiry as to the emergency features of the various cases, and offered no special opposition to an allowance of the claim.

Dr. Walter Lindley left March 20 for New York, whence he will sail on April 1 for Europe. He goes with letters to leading surgeons in Paris, London and Edinburgh, and will investigate all that is new and desirable in hospital equipment in the Old World. Dr. Lindley has been appointed by the Governor of California and the State Board of Charities to report on the methods of industrial schools and reformatories of Great Britain; he also goes as representative of the board of managers of the New York State Charities Aid Association, of which Joseph H. Choate is president, to secure information in regard to the care of dependent children. Dr. and Mrs. Lindley will be in Stratford-on-Avon the week beginning April 19, which is designated as "Shakespeare's Birth-week," April 23 being his birthday. They will return to America in time for the doctor to read a paper before the National Conference of Charities and Correction, which meets in Buffalo, N. Y., June 12. His subject will be: "Educational Methods in the Industrial Schools of Great Britain." —*Los Angeles Times*.

SOCIETY PROCEEDINGS

PROGRAM ARIZONA MEDICAL SOCIETY.

The eighteenth annual session of the Arizona Medical Association will be held at Prescott, May 19-20, 1909. The provisional program is as follows:

Tuesday Evening, May 18.

Meeting of the Council at 8 p.m. in the office of the Secretary.

Wednesday Morning, May 19.

9:15 a.m.—Registration at Secretary's desk.

9:30 a.m.—Meeting of House of Delegates.

10:00 a.m.—General Meeting.

Address of welcome, Mr. Morris Goldwater, Mayor of Prescott.

Response, John Wix Thomas, Phoenix.

President's address, A. W. Olcott, Tucson.

The Annual Essay, E. S. Godfrey, Jr., Tucson.

The Physician's Duty to the Family, John E. Bacon, Tombstone.

The Physician's Duty to the Public, John W. Foss, Phoenix.

Rabies: With Report of Cases, C. E. Yount, Prescott.

Wednesday Afternoon.

3:00 p.m.—General Meeting.

Oration on Surgery, Stanley Stillman, San Francisco.

Fracture at Elbow Joint, with Report of Case, Francis E. Shine, Bisbee.

Ceaserian Section, Abscess of the Spleen and Other Reports of Operative Cases, Mark A. Rodgers, Tucson.

Reports of Cases, A. J. Murietta, Jerome.

Surgical Technique, John B. McNally, Prescott.

6:30 p.m.—Meeting of the Council.

Thursday Morning, May 20.

7:30 a.m.—Surgical Clinic at Mercy Hospital, Stanley Stillman, San Francisco.

8:30 a.m.—Meeting of House of Delegates.

Reports of Committees.

Revision of the By-laws.

9:00 a.m.—General Meeting.

Trachoma, with Illustrating Charts, Daniel W. White, U. S. Indian School, Phoenix.

Hypertrophy of the Pharyngeal Tonsil, R. W. Graham, Prescott.

11:15 a.m.—General Meeting.

Oration on Medicine, W. Jarvis Barlow, Los Angeles.

Anterior Poliomyelitis, A. J. Rosenberg, Jerome.

Digitalis, W. I. Linn, Prescott.

Thursday Afternoon.

3:00 p.m.—Meeting of House of Delegates.

Election of Officers.

Appointing of Standing Committees.

Miscellaneous Business.

4:00 p.m.—General Meeting.

Differentiation of Reflex Dyspepsias from Primary Organic Disease of the Stomach, Dudley Fulton, Los Angeles.

Some Obstetrical Curiosities, Wm. V. Whitmore, Tucson.

Is Climate a Necessary Factor in the Treatment of Tuberculosis? Henry H. Stone, Phoenix.

Diagnosis and Treatment of Tuber-

culosis of the Throat, Francis H. Redewill, Phoenix.

Immunity and Serum Therapy in Tuberculosis, John W. Flinn, Prescott.

Announcements.

The annual banquet will be held at the Yavapai Club, on the evening of Wednesday, May 19.

A reception, luncheons, etc., are being arranged for the entertainment of the wives of visiting members.

Special arrangements have been made for the accommodation of visiting members and their families at the Hotel St. Michael.

The secretary is trying to arrange an excursion to the Grand Canyon of Arizona, after the meeting of the Association. If a party of eighteen can be gotten, the Santa Fe Railway will give excursion rates from Prescott and return, and provide a special Pullman car for the party. Those wishing to join this excursion should communicate with the Secretary as early as possible.

All railway lines in Arizona will grant a one and one-fourth fare for the return trip, on the certificate plan, to members and guests of the Association and their families, *provided that at least fifty persons who paid full fare coming to Prescott are in attendance.*

This promises to be an exceptionally good meeting and every member should make a strong effort to attend.

TO BOIL CATHETERS.

M. W. Herman states that boiling catheters in saturated solution of ammonia sulphate prevents them from becoming cracked and rough. Boiling for from three to five minutes causes complete sterilization, and after removal they may be used immediately, because solutions of ammonium sulphate are non-irritating to mucous membranes.

BOOK REVIEWS

NEW AND NON-OFFICIAL REMEDIES. Articles which have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association, prior to January, 1909. Chicago: Press of the American Medical Association, 103 Dearborn avenue. Paper, 25c; cloth, 50c.

Over two hundred different remedies are described, and after mastering the Pharmacopeia the practitioner and the student should become thoroughly familiar with this presentation of the newer materia medica.

PARSIMONY IN NUTRITION. By Sir James Crichton-Browne, M.D., LL.D., F.R.S. 12mo., cloth, 75 cents net. Funk & Wagnalls Company, New York.

This is a decidedly interesting little volume, in which the author, who is an eminent British medical authority, very cleverly attacks the theories of Horace Fletcher and of Prof. Chittenden of Yale, and formulates some good ideas as to what and how much the normal human being should eat. This is a timely and important topic, and a contribution to dietetic literature by so high an authority as Dr. Crichton-Browne is worthy of attention.

THERAPEUTICS OF RADIANT LIGHT AND HEAT AND CONVECTIVE HEAT. By Wm. Benham Snow, M.D., author of "A Manual of Electro-Static Modes of Application, Therapeutics, Radiography and Radiotherapy," "Currents of High Potential of High and Other Frequencies," editor of the Journal of Advanced Therapeutics, and late Instructor in Electro-Therapeutics in the New York Post-Graduate Medical School. Scientific Authors' Publishing Co., 349 West 57th St., New York. Price \$2 net.

This manual of upwards of 100 pages, illustrated and containing eight full-page plates illustrating the methods of treatment, has been prepared to meet the demand for a condensed and practical manual on Radiant Light and Heat Therapy. Chapters have been added showing the contrast between Radiant Light and Heat, and Convective Heat. A chapter is also included showing the comparative actions of

Radiant Light and Heat and the Roentgen Ray.

The work has been prepared with great care as to accuracy and detail, and includes the physical and physiological actions and therapeutics of the subjects treated.

BACTERIAL FOOD POISONING. A Concise Exposition of the Etiology, Bacteriology, Pathology, Symptomatology, Prophylaxis, and treatment of so-called ptomaine poisoning. By Professor D. A. Dieudonne, Munich, translated and edited with additions by Dr. Charles Frederick Bolduan, Bacteriologist, Research Laboratory, Department of Health, City of New York. Authorized translation. E. B. Treat & Company, 1909. Price \$1.00.

This little book of over one hundred pages is a valuable addition to the subject of meat poisoning. The author's classification of the subject is comprehensive and interesting. The forms of meat poisoning are discussed under the divisions of poisoning from eating diseased meat, poisoning from meat which has undergone putrefactive changes, and sausage poisoning.

Special features of this little work are the chapters on fish and mollusc poisoning, cheese, ice cream, and potato toxæmias. A full bibliography is also given, making this volume a desirable addition to the library of the practitioner.

TEXT-BOOK OF NERVOUS DISEASES AND PSYCHIATRY. For the Use of Students and Practitioners of Medicine. By Charles L. Dana, A.M., M.D., LL.D., Professor of Nervous Diseases in Cornell University Medical College; Visiting Physician to the Bellevue Hospital; Neurologist to the Montefiore Hospital, etc. Seventh Edition. Illustrated by 261 engravings and three plates in black and colors. New York, Wm. Wood & Co., 1908. Cloth, 782 pages, \$5.00.

For a concise and yet complete treatise on nervous diseases and psychiatry it would be difficult to find a volume more successful in its treatment of the vast amount of subject matter within its scope, than this volume of Dana of New York, which is now in its sev-

enth edition. His presentation of the anatomical basis of nervous diseases is particularly clear, and while today there is less need of such a presentation than at the time the first edition appeared, Dana has wisely allowed this portion of the work, bringing it up to the most recent investigations.

Psychotherapy is given considerable space, and the subjects of neurasthenia, hysteria and psychastenia have been largely rewritten and enlarged. The style is clear, the presentation of the subject matter is logical and scientific, the paper and print and binding are all good.

DANTE; PHYSICIAN. A. G. Drury, M.D., Cincinnati, Professor of Hygiene in the Medical College of Ohio, Medical Department of the University of Cincinnati. Cincinnati: The Lancet-Clinic, 1908. Cloth, \$1.

This is a charming little volume that any physician will enjoy reading. This great philosopher and poet was one of the eminent physicians of the thirteenth century. The book is a comprehensive biography and contains many illuminating, poetical quotations.

SELECTED BIBLIOGRAPHY: SANITARY SCIENCE AND ALLIED SUBJECTS. By Arthur W. Smith, M.A. (Yale), Boulder, Colo. A. A. Greenman Press. Price 50 cents.

This admirable bibliography has been prepared by Arthur W. Smith, M.A. (Yale) for the use of classes in Sanitary Science in the College of Liberal Arts, University of Colorado. Forty pages, interleaved, pamphlet binding. It is a usable bibliography because well annotated. There are 420 titles, including articles in periodicals and chapters in books. The contents are arranged alphabetically by authors under the following headings: I. General Works on Sanitary Science. II. General Hygiene, Personal Hygiene, School Hygiene. III. Etiology of Disease, Bacteriology, Protozoology. IV. Infection; Means, Vehicles and Carriers. V. Immunity, Toxins, Antitoxins, Opsonic

Method. VI. Disinfection and Disinfectants. VII. Water, Milk and Food. VIII. Sewage Disposal and Purification. IX. Climate and Health, Geography of Disease. X. Heredity, Race Improvement, Degeneration, Old Age. XI. Vital Statistics. XII. Patent Medicines, Quackery, Medical Superstition. XIII. Specific Infectious Diseases. XIV. Relation of Government to Sanitary Science; Public Health Administration. There has long been a demand for just such a booklet and Smith's work admirably fills that want.

SEVEN HUNDRED SURGICAL SUGGESTIONS. Practical Brevities in Surgical Diagnosis and Treatment. By Walter M. Brickner, B.S., M.D., Assistant Adjunct Surgeon, Mount Sinai Hospital, New York; Editor-in-Chief, American Journal of Surgery, Eli Moschcowitz, A.B., M.D., Assistant Physician, Mount Sinai Hospital Dispensary, New York, and Harold M. Hays, M.A., M.D. Third Series. Duedecimo; 153 pages. New York: Surgery Publishing Co., 92 William St. Price, semi-de-lux, \$1.00; full library de lux, ooze leather, gold edges \$2.25.

Those who are interested in surgery will find in this volume many valuable hints, for it is literally "packed full" of useful and valuable information for the general practitioner or surgeon. Written in short, terse epigrammatic paragraphs it puts its hints up to the eye of the reader in a manner which makes a lasting impression. The originality of its contents is in keeping with its elaborate and attractive mechanical make-up, and its popularity is evidenced by the fact that this is the third edition to appear within two years.

MEDICAL INSPECTION OF SCHOOLS. By Luther H. Gulick, M.D., Director of Physical Training, New York Public Schools, and Leonard P. Ayres, General Superintendent Schools of Porto Rico. Published under the Russell Sage Foundation by the Charities Publication Committee, New York, 1905. Cloth, 276 pages.

The great endowment fund set aside by Mrs. Russell Sage and now known as the Russell Sage Foundation in this volume adds new luster to its humanitarian power by presenting to the United States, a volume which contains the

most complete and accurate information of our school children, which has as yet appeared.

Without the aid of such an endowment, the publication of a book on this subject at this time would probably have been out of the question.

The data collected by Gulick & Ayres and their comments and suggestions are simply invaluable, and will do good without end in teaching medical and teaching professions, and the people-at-large as well, their responsibilities in the physical care of school children.

TUBERCULOSIS OF THE NOSE AND THROAT. By Lorenzo B. Lockard, M.D., Laryngologist and Rhinologist to the Jewish Consumptives Relief Society Sanatorium, the Y. M. C. A. Health Farms and the Evangelical Lutheran Sanatorium; formerly laryngologist of the National Jewish Hospital for Consumptives and Member of the Board of Directors of the Agnes Memorial Sanatorium; one time Professor of Anatomy, Toledo Medical College; Fellow of the American Academy of Ophthalmology and Oto-Laryngology, etc. With eighty-five illustrations, sixty-four of them in colors. C. V. Mosby Medical Book and Publishing Co., St. Louis, 1909. Cloth, 384 pages.

A disease so widespread as is laryngeal tuberculosis and concerning which such pessimistic beliefs exist as to its curability, is worthy the special and extended discussion which Lockard gives to this very important topic.

After discussing in detail the etiology, pathology, symptomatology and diagnosis, the author takes up the consideration of treatment, laying particular emphasis on the means to be employed in preventing this complication in pulmonary tuberculosis. Therapeutical methods are discussed at considerable length and from an optimistic stand-

point. The excellent illustrations add greatly to the value of the text and the book is bound to fill a long-felt need for those who have been face to face with the difficulty of treating the distressing and obstinate symptoms met with in tuberculosis of the larynx. Lockard's book is a valuable addition to the group of new English texts on tuberculosis.

PRACTICAL PHYSIOLOGICAL CHEMISTRY

A book designed for use in courses in practical physiological chemistry in schools of medicine and of science. By Philip B. Hawk, M.S., Ph.D., Professor of Physiological Chemistry in the University of Illinois. With two full page plates of absorption spectra in colors, four additional full page color plates and one hundred and twenty-six figures of which twelve are in colors. Second edition, revised and enlarged. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street, 1909. Cloth, 447 pages. Price, \$2.50 net.

No branch of physiology is receiving at this time quite so much attention as that dealing with physiological chemistry. The rapid advances being made in this division of the science necessitates a wide acquaintance with the literature. This book by Hawk has gathered much of this material together and he presents a logically arranged treatise, expounding the practical phases of the subject in a clear and masterly manner.

The volume had made a most favorable impression in Great Britain and the United States, so that a second edition has been necessary. The book can be recommended as an excellent volume for those who wish to keep abreast of the newer work and methods in practical physiological chemistry.

MISCELLANEOUS

THE PROBLEM OF POOR CONSUMPTIVES.

The Board of Supervisors of Los Angeles county has adopted the rule that hereafter indigent invalids who are shipped to that county from the East or South, will be sent back to their homes,

provided their physical condition is such as to permit them to take the return journey. This decision was reached as the result of a request from the Los Angeles Board of Charities that county aid be extended to a resident of Alabama who is in the last stages of tuber-

culosis and who arrived in Los Angeles recently, accompanied by his wife and children. The case was one of many to be found in almost every Southern California city. The invalid had exhausted his slender means in coming to this State with his family, and had necessarily become a public charge. So the Supervisors decided to send him home, provided he is able to stand the trip, and that a like course will be taken in similar cases hereafter.

The example of the Los Angeles Supervisors might be followed with advantage in all these southern counties. The practice of shipping impecunious invalids to Southern California has attained the proportions of a grave menace. The communities to which these unfortunate people are sent are compelled by humane considerations to support them while they are there, and at the same time to incur the risk of disease. In Los Angeles the evil has become so great that the charitable bodies of that city recently united in a resolution urging that Eastern benevolent societies and physicians should cease "sending patients in the last stages of consumption to Los Angeles, only to cause suffering to the indigent and a burden to communities to which such patients have no tie."

Nor will the plan to send these invalids home work hardship to them. On the contrary, in many instances it will be the best service that could be rendered them. It is nothing less than downright cruelty to send a penniless person in the advanced stages of tuberculosis hundreds of miles from home to be an object of the charity of total strangers. Recovery in those conditions is not to be expected, and the unfortunates will very probably suffer more, physically and mentally, until death comes to their relief, than they would in their own homes, even under less favorable climatic conditions. These facts are now recognized by many East-

ern physicians. Much has been written on the subject, and the fact is gradually becoming established that change of climate alone will not suffice. The patient must have care and nourishment in his new place of residence, and unless he has the means to procure these, it is unkind to him to send him from family and friends.

It should not be inferred that because Southern California does not wish penniless consumptives, this part of the State is bidding for wealthy victims of tuberculosis. Many people believe that the bars should be put up, that quarantine measures should be adopted to prevent any persons suffering from that disease from entering the State. But humane considerations have thus far forbidden the taking of so drastic a step. The effort is rather to isolate these unfortunates and minimize the danger of the disease being communicated. But people here have a right to say that consumptives shall not be forced upon them, and the alternative presented of supporting them from the public purse and at the risk of the public health, or letting them perish outright because of a lack of Christian charity. In these conditions the only practicable plan is to defray out of the public funds the cost of sending these invalids back to their homes. It is the course that is demanded alike by self-protection and the best interests of the persons thus deported. It is obvious, too, that were this method generally followed in Southern California, the practice of shipping penniless tuberculosis sufferers here would soon be much less common than it is at present.—*San Diego, Cal., Union.*

Sound sleep is impossible if your patient suffers from nervousness. Give Neurilla in teaspoonful doses four times a day until the nerves regain their normal vigor, and refreshing sleep will follow as a natural result.

COLLEGE OF MEDICINE, UNIVERSITY OF CALIFORNIA.

The *Journal A. M. A.* of date of March 20, prints the following interesting item concerning the affiliation of the College of Medicine, U. S. C., with the University of California:

ANOTHER INNOVATION IN MEDICAL EDUCATION.

Attention has frequently been called to the rapid progress which has been made during the last few years in medical education, and to several innovations which have been initiated during this development. In Indiana,¹ five medical schools united to form one, the medical department of Indiana University, and in Kentucky,² five separate colleges united under the name of the University of Louisville Medical Department. In both these instances one fairly strong college replaced several which were not so strong with the result that they are now receiving considerable financial aid.

Attention was called to the fact that in Cincinnati³ two colleges united to form one stronger college, the Medical Department of the University of Cincinnati, which will be opened the coming fall with very favorable prospects. This was particularly interesting, since it was the first medical college to be supported by a municipality. The building of the new Cincinnati Hospital, the clinical material of which is to be under the control of the city's new medical school, is a matter of much interest at present.

The arrangement by a number of State universities whereby the first two years of the medical course were given at the seat of the university, while the last two or clinical years were offered in the largest city of the State has also been referred to,⁴ resulting in the di-

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vision of the medical course. At Cornell University and at Indiana University this plan was modified by offering the work of the first two years both at the seat of the university and in the largest city. Now in California we have another modification of this plan whereby the first two years of medicine are offered only at the seat of the university, while the last two years' work may be taken at either one of two large cities. This plan was brought about as follows:⁴

On February 9, the Board of Regents of the University of California accepted from the College of Medicine of the University of Southern California, located at Los Angeles, all the property of the latter institution, and made it the Los Angeles Medical Department of

¹The Journal, Aug. 25, 1906, p. 588.

²The Journal, Aug. 15, 1908, p. 610.

³The Journal, July 11, 1908, p. 152, and July 18, 1908, p. 229.

⁴The Journal, Feb. 27, 1909, p. 709.

the University of California, a similar medical department having been previously established at San Francisco. Instruction in the first two years will be given at Berkeley, but the medical student may choose either the San Francisco or the Los Angeles departments for his subsequent training.

Another special point of interest in this merger is that it shows a way in which the State may acquire a firmer grip on medical education by having

departments of instruction in the two or more cities of the State which may be large enough to warrant the establishment of clinical departments, and may also be an important factor in influencing legislatures to secure the passage of laws establishing fair standards of preliminary and medical education. The example set by California in the matter is certain to be watched with much interest by medical educators throughout the country.

DISTRICT NURSING IN LOS ANGELES.

BY MAUD FOSTER WESTON, SUPERINTENDENT DISTRICT NURSING, LOS ANGELES.

In presenting a report of the District Nursing Work of Los Angeles, it is fitting to mention its origin. We quote from the last report of the College Settlement under which the nurses have successfully served for ten years.

"For a City Council to establish a precedent in any matter is a bold undertaking, yet be it ever accredited to the city fathers of Los Angeles that in 1897, when an appeal was made from the College Settlement to appropriate a monthly allowance of \$50.00 for the support of a District Nurse, they granted the request, increasing the salary in 1903 to \$75.00. No similar request had been considered in Boston, New York or Chicago. The interposition of municipal politics was feared."

Work began in the public schools in 1903. In conjunction with the city health officer, the Settlement furnished statistics and reports which led to the appointment of the first school nurse, September, 1904.

Today Los Angeles supports six public nurses, three district nurses serving under the College Settlement and three school nurses serving under the city health officer.

The special function of the district nurse is to direct and to administer preventive treatment. Her work is unlike that of the hospital or private

nurse, and it is but recently that she has come to a place of distinction. Indeed, the district nurse who *discovers*, who *prevents*, who *instructs*, occupies a field peculiarly her own. All well-equipped nurses have been trained at some school and have had hospital practice, sometimes a four-years' course and often post-graduate work. In any case, the training must be an acknowledged and certified one.

Let us draw a few comparisons between the two systems—hospital nursing and public nursing. We shall classify public nursing under three heads:

1. District Nursing.
2. Public School Nursing.
3. Specialized Public Nursing.
 - A. Maternity Nurses.
 - B. Nurses for the Tuberculous Poor.
 - C. Nurses for Contagious Diseases.
 - D. Emergency Nurses.

A hospital nurse has her patients confined, perhaps to one ward of a hospital. A district nurse covers the entire ward of a city, and her field of labor includes miles of city blocks, usually the most congested, poverty-stricken and desolate blocks of that city.

A hospital nurse carries on her work under perfect sanitary conditions; all

modern appliances are at hand. For scientific work, for an opportunity to quickly restore her patient to health, for the working out of professional ideals, this hospital environment is complete. But the environment of the district nurse? Let us describe it. She enters a dingy street of a crowded city ward; a row of neglected cottages greets her eye; she passes into the courtyard behind them and knocks at the door of what might be a horse-stall or chicken-shed, and is admitted to the room of her patient, a room 8x12 for a family of five, the furniture a cot, perhaps a chair, a box or two, a broken-down stove filled to the brim with ashes, a tin cup, one basin—the family basin. The water faucet which supplies the house is out in the courtyard. This is not an uncommon environment. In Los Angeles daily our nurses work amid such surroundings. How may she approach hospital ideals? How may she reach this family and bring health to her patient? In as tactful a way as possible, she goes to the sick member of the little household, questions are asked, and with the help that she can command, she prepares the patient for the doctor. There may be no one to send for the doctor, so she goes herself. While awaiting his arrival, she studies her case and perhaps instructs some member of the family to clear the stove, for warm water she must have. If she suspects a typhoid case, she investigates the toilets in the courtyard and all the immediate surroundings. If it is tuberculosis, she must go deeper, penetrating as gently as possible into family history; if it is something more evasive, deeper yet must she probe, and this can only be accomplished in the most kindly way. Racial prejudices, superstitions—prejudices against doctors and hospitals—there is so much to be overcome. She must indeed have a very fine sense of values!

THE SECOND WARD.

As long ago as 1898 the Second Ward nurses' records show that the City Council were notified of bad housing conditions in the Settlement neighborhood. The valuable assistance given by the nurse to the city health officer at this time averted a typhoid epidemic. Year by year this nurse has watched the evolution of the Mexican adobe and patio into the tenement and filthy courtyard. These windowless adobes have become ill-smelling, tuberculosis-breeding tenements. We recall one instance where an adobe, once a Mexican home of distinction, with twelve rooms facing a patio, has become a miserable tenement of twelve separate *homes*, sheltering many nationalities. It was an easy transition and a profitable one for the owner who desired to live "uptown." A single cactus pathetically suggests the former patio and the days of ampler breathing spaces. Today this part of the Second Ward is filled with foreigners—peons from Mexico, and Italians. In 1904 the Slavonian opened cheap lodging-houses on Castelar street. "English is not spoken" in this part of Los Angeles, commonly called "Sonoratown."

THE SEVENTH WARD

When we enter the Seventh Ward, we confront entirely different conditions. Passing through a manufacturing section of the city, by iron foundries, packing-houses and railroad yards at Mateo and Willow streets, we enter a region of small cottages, some of them occupied by well-to-do Americans. Here the Mexicans are few, but on reaching the southern end of this ward we find a colony of 800 Italians. On Santa Fe avenue there is a large population of negroes. It is estimated that there are 5,000 negroes in and about this neighborhood, which is called "South Africa." The East Seventh street public school has an enrollment of 800 pupils. This nurse's territory is a wide one, but the greater portion of her work is confined

to that section lying between First street on the north, Ninth street on the south, Santa Fe avenue on the east and Alameda street on the west. Through the courtesy of the Playground Commission, in September, 1906, a room was built for the Seventh Ward nurse at the City Playground No. 1, on Violet street, adjoining the home of Mr. Raitt, the playground superintendent. The proximity to the public playground and to the public school makes this an ideal situation for a Nurses' Supply Station and Dispensary in the Seventh Ward. Each Tuesday and Friday morning at eleven o'clock, Dr. A. P. Wilson takes care of the dispensary service.

THE EIGHTH WARD.

"Oh, this is more like it," commented an eastern visitor as he entered the nurse's precincts of the Eighth Ward, implying that we had reached eastern standards of poverty, wretchedness and congestion of habitation. He was right. In January, 1907, we found here the most congested housing and fiercest poverty in Los Angeles. In this ward the Japanese, Russians and peons contend for supremacy. There are a goodly number of Jews. Not many are aware that there are two Japanese hospitals in Los Angeles, with Japanese physicians and nurses in attendance. How few realize the task of grappling with tuberculosis when Russian superstition and Oriental complacency have to be combated! The problem of the peon courtyard is a serious one in Los Angeles, but the problem of tuberculosis in the cheap and unsanitary lodging-houses of the Eighth Ward is by far the gravest our nurses have encountered. The Sanatoria in and near the city, the Anti-Tuberculosis League, are doing much, but they do not meet the need, and the rest remains to be done by the district nurses. The monthly bulletin of the California State Medical Board in its vital statistics for December, 1906, says: "It is safe to say that 65 per cent of all

those dying from tuberculosis in California *contracted* the disease in the state!" Some morning, come with us to the Eighth Ward, and with the nurse's help we can show you why and how tuberculosis is contracted here.

MATERNITY WORK

The maternity work of the nurses is altogether the heaviest they have. A special nurse should be provided for it. During a single month, one of the nurses attended nineteen cases! There is always a long waiting list. To those who think clearly on this subject, Los Angeles presents a curious problem of neglect: churches, theaters, men's and women's club-houses, sanatoria and private hospitals—but no maternity hospital for the poor! To our eastern visitors in the medical profession, this is a matter of astonishment, and there is no fighting shy of existing conditions. Our nurses assist able physicians at most difficult and serious operations in rooms which are no better than hovels. It is miraculous that the cases come out as successfully as they do. A maternity hospital is one of the urgent needs of Los Angeles.

UTAH STREET.

Two of our nurses are at work in the Ninth Ward in those districts familiarly known as "Utah Street" and "The River Bed." The work is confined largely to the Mexicans, and there is much tuberculosis among them. Recently there has been an influx of Russians into Utah street and the vicinity.

IN THE PUBLIC SCHOOLS.

This work began in October, 1903, but in September, 1904, the public school nurse was appointed and our district nurse was relieved. Each nurse, however, retains the public school in her immediate district, and reports to the city health officer. One day each week is given to this special department. Heads are cleaned, contagious skin diseases are carefully investigated, ears

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and eyes examined, and instruction in hygiene given.

It is the aim of the Settlement to encourage the highest proficiency of service. Monthly meetings are held at the home of the superintendent, and the following lectures have been given: "Tuberculosis," Dr. Pottenger; "Maternity Service in the Homes of the Poor," Dr. Coffey; "The Out-patient Department of the Medical College of the University of Southern California," Dr. Decker; "The Queen's Jubilee Nurses," Miss M. A. Ellison.

The district nurse's calling requires a strong physique, a well-trained, well-poised mind, and what is often disregarded, a keen spiritual insight. "She is a hygienic agent of high value," who discovers to the people among whom she works not the agencies existing for the preservation of health alone, but many others for the betterment of their condition. Her work is educational and humane. Preservation of home-life through her keen knowledge and effective application of preventive measures is her essential service to the public.

CALIFORNIA HOSPITAL ALUMNAE ASSOCIATION

The regular monthly meeting of the California Hospital Nurses' Alumnae Association was held Monday, March 29, at 2:30 p.m., which was well attended.

A bill for filing the "Record Sheet" and 500 sheets of paper for the year 1909 was presented.

The "Record Sheet" is a monthly paper devoted to the interest of nurses and has been accorded a permanent place in the Association.

In the last paper an article from a Denver correspondent was read on a late cure for pneumonia.

A canvass was made for subscriptions for the *American Journal of Nursing* and six new names were added. The members are glad to take advantage of the dollar-and-half rate.

The chief feature of this meeting was the debate, the subject of which was, "Resolved, that suffrage be granted to the women of the United States." The debaters for the affirmative were Mr. Mason and Miss Hilton; negative, Miss McConnell and Miss Martin.

Those elected to act as judges were: Rev. C. C. Pierce, chairman; Mr. James B. Threlkeld, Miss Edith Lamp-

man, Superintendent of the California Hospital; Mrs. William B. Middleton, Directory Manager, and Mrs. Victor Watkins nee Alma Green, class '03.

The speakers handled their subjects well, showing keen interest and deep

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Applied from ear to ear as hot as can be borne comfortably by the patient, depletes the enlarged lymph glands, guards against the passage of toxins into the circulation and reduces the liability of Mastoiditis, Middle Ear and Laryngeal complications in Tonsilitis, Scarlatina, and other diseases of similar nature.

The dressing of Antiphlogistine must be at least an eighth of an inch thick, covered with a plentiful amount of absorbent cotton and held snugly in place by a bandage.

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study of the matter at hand. Rev. C. C. Pierce paid the Association a great compliment by saying it had not been his privilege to listen to a better debate on any subject. The decision was in favor of the negative.

At the close of the meeting, refreshments were served by Mrs. Middleton and her daughter.

The Association members feel greatly indebted to the Program Committee for the excellent programs which they have provided so far this year.

PERSONALS.

Mr. Walter Watkins is the proud father of a brand new daughter.

Miss Lickert has accepted a hospital position in Jerome, Arizona.

Miss Inez McIntyre, P. G. C. H., has gone to accept a position at Silver Bell, Arizona. We hope she may find it as musical and harmonious as the name indicates.

Mrs. Carson, class '04, has recently been attending her sister, who was delivered of a son at the California Hospital.

The first course of twelve weeks in scientific cooking has just been completed in our Training School. The dietician is a graduate of Teachers' College, Columbia University.

A new course has recently been adopted in our hospital curriculum, that of two months at the Barlow Sanatorium.

Miss Eva V. Johnson is spending a few weeks at Ocean Park.

The Alumnae Association hereby tender their thanks to Dr. Titian J. Coffey for the gift of a fine oak bookcase for our circulating library at the directory rooms.

The two volumes of the "History of Nursing," by Miss Dock and Miss McIsaacs, have recently been purchased by the Association for the library. We find these a valuable addition to our collection.

Mrs. E. P. Durbin, Miss Hilton and Miss Simpson are having a house party at Ocean Park, where they expect to entertain friends from Los Angeles.

THERAPEUTICAL HINTS

PHENOLPHTHALEIN AS A CATHARTIC.
A case is reported by Dr. L. Wenhardt where a child, two and one-half years old, having eaten, by error, 11 grains of Phenolphthalein, suffered no worse effects than diarrhea. From all accounts Phenolphthalein is rapidly increasing in clinical favor and is not unlikely to realize the prophecy made for it by its discoverer that it would become "the purgative of the twentieth century." An interesting pamphlet upon the characteristics and prescription uses of Phenolphthalein has been compiled for the medical profession by the Pax Chemical Company of Oakland, Cal., and a copy of the same will be sent free to any physician applying by letter or card to that company.

PERFUMED BATH POWDER.—Sodium bicarbonate, 3 ounces; tartaric acid, 2½ ounces; starch, 4 ounces; oil of lemon, ½ dram; oil of orris, 5 minims; oil of ylang-ylang, 5 minims. This makes one powder for one bath.

A physician who has an excellent practice in a beautiful fruit and agricultural section of California, desires to sell. This is a thriving community and collections are good. If you are interested address SOUTHERN CALIFORNIA PRACTITIONER, 1414 South Hope street, Los Angeles.

If in removing adenoids the mass is seized below and gradually stripped off from the mucous membrane, it can be more quickly and completely removed.

SOUTHERN CALIFORNIA PRACTITIONER

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NO. 5

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Assistant Editors.

DR. H. BERT ELLIS, DR. GEO. L. COLE and DR. W. JARVIS BARLOW,
Associate Editors.

HOSPITAL OPERATIVE CARE.

BY REXWALD BROWN, M.D., SANTA BARBARA, CAL.

Hospitals properly equipped and properly managed are essential to modern medical and surgical care. It is possible in small cities to conduct hospitals on the lines of large metropolitan institutions. Patients can be served with that same careful attention found in New York, Chicago, San Francisco, or other large cities—that attention which makes for smooth, speedy cures.

Nurses can be graduated from small town hospitals whose training has been in full accord with modern effective scientific methods. Education is a process of downward diffusion—these graduates are the pupils of women who have been schooled under the superior superintendents of nurses and the master physicians in the great cities.

The morals of a hospital depends almost entirely on a competent superintendent of the training school, in absolute control in her sphere, and an efficient disciplined corps of pupil nurses. The superintendent must not be a good nurse only, but a good nurse plus reserve and dignity, executive force, tact, and teaching ability. The hospital which does not secure to itself a nursing head

with the above qualifications, through some mistaken sense of economy or other reason, fails to render the public the best possible service to which it is entitled. Also does it fail to give its nurses the full measure of knowledge which should be theirs in exchange for their labor in behalf of the hospital patients.

This paper is written not to place new material before the profession on pre- and post-operative care. The details of case management in our hospital in Santa Barbara, as described below, will be found patterned after those of large metropolitan hospitals. In detailing the care, we trust to further in a small way the growing confidence in the efficiency of hospitals more or less far removed from great medical and surgical centers.

Our patients as a rule enter the hospital the day previous to the operation. Calomel in divided doses, two grains, is given shortly after arrival, followed in two hours by two drachms of magnesium sulphate. The next morning, four hours before the operation, a high salt-glycerine-water enema is introduced.

Thorough cleansing of the bowels is thus assured.

The area for the surgical work is shaved and thoroughly washed with green soap and water. The field is then drenched with bi-chlorid solution, alcohol and ether. Dry sterile dressings firmly bound on finish the initial preparation. No soap compresses or bi-chlorid dressings are allowed to soften and macerate the skin. A similar technique is observed when patient is under the anesthetic and before incision is made.

A light soup is allowed for the evening meal, and water freely in the morning. Especial care is taken that the bladder is emptied just before the patient goes to the operating room.

One-half hour before operation $\frac{1}{4}$ gr. of morphine and 1-120 gr. of atropin is introduced beneath skin. The atropin is very efficacious in limiting the secretion of mucous and saliva into the throat, thereby making ether little more aggravating than chloroform anesthesia.

Ether is invariably given, because of its uniform safeness, and patients are always put to sleep on the operating table. It is dangerous to anesthetize in bed, then move patient to a cart, and again to the table. In so doing, the patient is from under complete control twice, and at these times it is very possible for the tongue to drop back into the throat, with jaws set, a serious accident which can be avoided when patient is on the table from the outset. A special point is made of holding the jaw well up all the time. The ether is given by the drop method, which is altogether simple and easy.

Throughout the operative technique we endeavor not to lose sight of the fact that convalescence may be seriously interfered with by lack of attention to details. Shock is by no means altogether dependent on the time a patient is on the table, but results more often from injuries to nerves,

from rough handling of tissues, and from loss of blood. We zealously avoid mass ligatures, which so often include nerve structure, whose compression is a source of pain and invalidism for weeks. Small bleeding vessels are ligatured, and oozing surfaces always covered with adjacent tissue. Breaks and abrasions in the peritoneal surfaces especially are fully repaired. This conduces to lessened flatulency and gas pains, and decreases the possibility of intestinal atony and adhesions.

The restoration of tissues to as near normal as possible means as a rule a very minimum amount of post-operative treatment, which is directed mainly to making patients comfortable during their stay in bed. Limbs and back are rubbed with soothing oils and alcohol, light massage is given, passive exercise instituted, and bandages are kept snug. Much discomfort often arises from too tight binders, adhesive plasters, or stitches, and complaints regarding these should be given immediate attention. In general, we try to let our patients get well without bothering them with unnecessary attention, which has a tendency to make them feel all is not as it should be.

Returned to bed all patients are immediately placed in the Fowler or inclined position, and so maintained until they are altogether free from the effects of the ether. This is done that there may be no diaphragmatic compression with lessened lung expansion and increased liability to pneumonia. Free breathing is a decided comfort to a patient. Of course those who are suffering from peritonitis are kept constantly in the Fowler position that the septic material may gravitate to the pelvis, of limited absorbing power, and from which the pus may be drained away. The knees are propped up on pillows as rests and in many cases no objection is made to the patient

turning from side to side as soon as he expresses a desire to do so.

Severe nausea and vomiting after operations is encountered but little with the present drop method of anesthesia, which does not deluge the patient with ether. What vomiting, if any, there is in the first few hours is dependent upon ether saturated mucous from the throat, swallowed during the operation, acting as a stomach irritant—also the gastric secretions are full of ether and very irritable. It has not seemed wise to introduce a stomach tube into an unconscious patient on the table that the stomach might be washed out, because of the dangers attendant on the procedure, and warm water in good quantity and frequently is early given by mouth instead. This brings relief to a patient even though larger quantities are temporarily vomited. The ether is washed away by a natural lavage, and the stomach is quieted—retching and nausea cease. Cold water should not be allowed as it brings on gas pains, that source of suffering when once present, is so extremely hard to alleviate.

Proctoclysis—the Murphy treatment—is instituted in all abdominal sections and other operations of severity. It introduces fluids rapidly into the blood stream, restores blood pressure, aids in quieting thirst, stimulates the kidneys to secretion—it prevents anuria—and in sepsis dilutes the circulating toxins. The rapid absorption of water from the large bowel depends entirely on the method of its administration into the colon. Close attention to detail is essential for results. The technique is best described in Dr. Murphy's own words which follow: "The fluid should be administered through a fountain syringe to which is attached a three-eighths inch rubber hose fitted with a hard rubber vaginal douche dip with multiple openings. This tube should be flexed almost to right angles three

inches from its tip. A straight tube should not be used as the tip produces pressure on the posterior wall of the rectum when the patient is in the Fowler position. The tube is inserted into the rectum to the flexion angle and secured in place by adhesive strips binding it to the side of the thigh so that it cannot come out; the rubber tubing is passed under the bedding to the head or foot of the bed, to which the fountain is attached. It should be suspended from six to fourteen inches above the level of the buttocks and raised or lowered to just over balance hydrostatically the intra-abdominal pressure, i. e. it must be just high enough to require from forty to sixty minutes for one and one-half pints to flow in, the usual quantity given every two hours. The flow must be controlled by gravity alone and never by a forceps or constriction on the tube, so that when the patient endeavors to void flatus or strain, the fluid can rapidly flow back into the can otherwise it will be discharged in the bed. It is this ease of flow to and from the bowel that insures against over-distension and expulsion onto the linen. The fountain had better be a glass or graded can so that the flow can be estimated. The temperature of the water should be maintained at 100°. The fountain is refilled every two hours with one and one-half to two pints of solution. When the nurse complains that the solution is not being retained, it is certain that it is not being properly given."

Early bowel movements aid much a patient's well being and comfort, and these are invited usually on the second day either by enema or some easy laxative, except perhaps there be some special reason for keeping the bowels inactive for several days, as in operations about the rectum.

Gas distention is relieved by enemas, usually containing turpentine. A rectal tube introduced and left for several

hours often given pronounced relief. Eserin salicylate, hypodermatically, has at times seemed efficacious.

Little concern is felt if the patient does not urinate within twelve or sixteen hours, though this rarely occurs when proctoclysis is carried out. After this time, rather than inserting a catheter, the patient is allowed to sit up, often to a commode, which procedure usually permits voluntary urination. Hot applications over the hypogastrium often are effective. No matter with what extrême asepsis a catheter is introduced, possibility of bladder infection is not averted, for the catheter carries to the viscus the germs which normally live in the urethra.

The pain of the first twenty-four or thirty-six hours which is rarely severe, is eased by the use of codein, in from one to three grain doses, hypodermatically. Morphine is sometimes used following operations in areas other than the abdomen, and in abdominal cases in very exceptional instances, and in these only after the bowels have freely moved. Morphine aids in the production of ileus if such tendency be present.

Food, as albumen water and broths, are allowed on the second day. After the bowels are open, the diet is increased by the addition of eggs, cereals, toast and other light and semi-soft substances. By the fifth or sixth day, a general diet is partaken of, unless there be reason for withholding it.

Laparotomy cases are kept in bed from ten days to two weeks, healing not being thought firm before this time. Perineal repairs and uterine suspensions remain recumbent at least one week

longer. Circumstances of course alter somewhat these limits.

With minor deviations from the technique as above I have in the past eighteen months performed 106 operations as follows: Appendectomies 19, suspensions of the uterus 10, removal of haemonhoids 10, ovariectomies 9, salpingectomies—double 8, perineorrhaphies 6, curettements 5, breast removals—radical 3, gastroenterostomies 3, wiring of fractures 3, tendinoplasties 3, herniotomies 2, opening of pelvic abscesses 2, hysterectomies 2, fistulo—in ano 2, ruptured tubal pregnancies 2, exploratory celiotomies 2, removal of bunions 2, prostatectomy-perineal 1, colostomy 1, removal of varicose veins 1, repair of ruptured urethra 1, osteomyelitis of tibia 1, cholecystotomy 1, cholecyst-enterostomy 1, removal of parotid tumor 1, kidney de capsulation—double 1, appendicostomy 1, peritoneal drainage following puerperal infection 1, varicocele 1, and repair of hair lip 1. In this series of cases there have been six deaths, one from ileus attendant upon a gangrenous appendicitis, one from septic absorption following gangrenous appendicitis and general suppurative peritonitis, one from exhaustion three weeks after a combined gastroenterostomy, appendectomy and ovariectomy, another from adynamic ileus two weeks after a gastroenterostomy for advanced carcinoma of the stomach, one from cholemia following anastomosis of gall bladder to intestine in in-operable carcinoma of head of pancreas, and one following exploratory incision in which an enormous retro-peritoneal sarcoma was found.

LITHAEMIA.

BY J. B. COOK, M.D., LOS ANGELES, CALIFORNIA.

As one cloud may darken and obscure an entire landscape, so the term Lithaemia seems to me to overshadow and unsettle the entire domain of in-

ternal medicine. Other conditions and diseases can be separated more or less completely from contiguous or related conditions, but Lithaemia occupies

such an anomalous place among other subjects, that one author names thirty-eight different conditions or diseases which he thinks dependent upon it. In searching the literature and the text-books for light on this subject, I found such a diversity of opinion that it has been a matter of great difficulty to select an array of facts suitable for presentation to this society.

I wish here to state that the greater part of this paper is a compilation taken in part or wholly from various authors. Osler in his article on Lithaemia refers the reader to irregular gout. "This is a motley, ill-defined group of symptoms, manifestations of a condition of disordered nutrition, to which the terms gouty diathesis or Lithaemic state has been given.

This term Lithaemia was introduced by Murchison to designate certain symptoms which he considered due to functional disturbance of the liver. While the term is still used to cover those symptoms, it is by no means sure that the main disturbance is in the liver causing a faulty metabolism of the albuminous ingredients. Osler says that "in the present imperfect state of knowledge it is impossible with any clearness to define the pathology of the so-called uric acid diathesis." "We may say that certain symptoms arise in connection with defective food or tissue metabolism, more particularly of the nitrogenous elements. Deficient oxidation is probably the most essential factor in the process, with the result of the formation of less readily soluble and less readily eliminated products of retrograde metamorphosis. This disturbed metabolism produces high tension in the arteries and ultimately degenerations in various tissues, particularly the scleroses.

"Over-eating and over-drinking, when combined with deficient muscular exercise, lie at the basis of this nutritional disturbance."

There is one thing that all authors agree upon, and that is, that uric acid is the chief offender in Lithaemia. We will study this substance for a few moments and see if we can get anything of interest out of it. The chemical formula is $C_5 H_4 N_4 O_3$. It is prepared usually from the excrement of serpents or from guano, by boiling with dilute potassic hydrate, and decomposing, by hydrochloric acid. It forms a glistening snow-white spongy crystalline powder, tasteless and inodorous, slightly soluble in water, insoluble in ether and alcohol. It forms salts called urates. This acid is excreted by the kidneys of the normal adult, and appears in solution in the urine to the amount of 10 to 12 grs. in 24 hours. It bears a fairly constant ratio to the amount of urea excreted, the normal proportion being 1 to 50. In gout the proportion is 1 to 300, and as low as 1 to 500 in the intervals between the attacks. Uric acid occurs chiefly in combination with sodium and ammonium, forming the acid urates. In smaller quantities it occurs in combination with potassium, calcium and lithium. It may be separated from its bases and crystallizes in rhombs or prisms, which are usually of a deep red color, owing to the staining of the urinary pigments. The sediment formed is granular and the groups of crystals look like the grains of Cayenne pepper. It is very important not to mistake a deposit of uric acid for an excess. A deposit in the urine a few hours after passing is more apt to be due to conditions which lessen the solvent power than to increase in the amount. According to Roberts the following are the conditions which cause precipitation: (1) High acidity of the urine; (2) poverty in mineral salts; (3) low pigmentation; and (4) high percentage of the uric acid. The first mentioned is probably of most importance.

The precipitation of amorphous urates, forming the so-called brick-dust deposit, is much more common. It is composed chiefly of acid sodium urates. It occurs in very acid urine of a high specific gravity. As it is more soluble in warm solutions, we usually find it in the cold urine and it clears up on boiling. Here, too, the condition does not usually mean an excess, but simply conditions favoring a deposit.

Butler gives the following symptoms of Lithaemia: The manifestations in the gastro-intestinal tract are catarrhal gastritis, or simply functional disturbances with constipation, foul breath, coated tongue, deficient biliary secretion, a "bilious attack." In the vascular system there is arteriosclerosis, with increased tension, leading to cardiac and renal changes, either of which may predominate; or the sclerotic process in the aorta or cerebral vessels may favor the growth of aneurysms, and death from apoplexy may result; or yocarditis, or pericarditis may determine a fatal issue.

As mentioned, chronic interstitial nephritis supervenes. In the lungs bronchitis is usual, sometimes emphysema or pleurisy. The skin lesions are pronounced, eczema in particular, next acne, psoriasis, and urticaria. In the eye, iritis is most common, though retinitis is not infrequent. Of nervous symptoms headache is common, next neuralgias and sciatica; lastly perpetual disturbances, itching eyeballs, burning and itching feet, and cramps in the legs.

Spontaneous urethritis has been reported. One author says, "Uric acid is a powerful excitant, a powerful tonic, and, on the other hand it may be a miserable pain producer and a miserable depressant; these variations being due to the amount circulating in the blood or deposited in the tissues. To maintain a satisfactory mental and

physical equilibrium, a proper equilibrium must be maintained between the intake and output of uric acid. The possessors of the brightest minds in literature and art today are the very men and women who are the greatest sufferers from the effects of uric acid diseases and the symptoms it manifests, as depression, melancholia and bodily pains on the one hand, and extreme sensitiveness, mental elation and physical stimulation on the other; these conditions being simply extremes of the individual normal temperaments and normal physical conditions.

Edward P. Adams gives a diagnostic point which I have not seen in the text-books. He calls it the capillary reflux and it is based on the reaction of the capillaries of the skin after pressure. He makes the test as follows: Place the hand to be tested on about the level of the heart and make a decided pressure on the back of the hand with the tip of one finger for five seconds. After the removal of the pressure the capillaries will be found to be emptied of blood, and a variable length of time elapses before the normal color returns. Between the instant of removal of the pressure, and the full return of the skin to the normal color, count the half seconds of time, and this will represent approximately the degree of "collaemia." The normal capillary reflux in the morning is about five half seconds, and in the evening about four half seconds, the greater number of half seconds elapsing before full reflux, corresponding with the increased amount of collaemia; if for instance, the count be low, at or near the normal, then the blood pressure is low, and the blood normal as to uric acid; if the count be high, or above normal, then there is a corresponding high blood pressure, and a corresponding collaemia exists, with more or less obstruction of the capillaries.

Just a word in explanation of the term collaemia. Haig says, that at times (and from the text I infer that, by that he means usually,) the blood reaches a point where it nearly balances between acidity and alkalinity. In this condition the uric acid takes on a colloid form which very seriously blocks the capillary circulation. This condition is produced and maintained largely by the presence of phosphates in the blood. Now as to treatment: 1. Prevention; I would like to refer you to an article by Haig in the *Medical Record* of August 26th, 1905, entitled, "Freedom From Uric Acid and How to Obtain It." He mentions in one of his books a list of uric acid free foods as follows: Milk and its products, breadstuffs, cereals and gluteins, nuts, vegetables and fruits. In the article referred to he cautions us to abstain from everything which has a tendency to lessen the alkalinity of the blood.

Warmth is one of the prime requisites, as perspiration removes acid secretions from the system. He decries the use of the cold bath of mornings as it is used at a time when the kidneys are doing their heaviest work of excretion of acid. The chilling of the surface by checking the insensible perspiration of the body lessens the alkalinity of the blood.

He advises a liberal use of fruits in season, but sees a distinct danger in their use in the winter in the more rigorous climates. He says that man, in his early home in the tropics could possibly live on fruits and nuts, but that in the temperate zone he must in winter use vegetables more, and the potato principally. 2. Treatment by medicine: The drug which has been used more than any other in this disease is lithia. It was found years ago that lithia in solution would dissolve uric acid crystals outside of the body. The profession without adequate in-

vestigation came to the conclusion that as it was also a good diuretic, it would dissolve and carry it out of the system. They lost sight of the fact that the chemical changes taking place in the stomach and elsewhere might rob the lithia of this solvent power. Recent investigations have proven that collaemia is largely produced and maintained by the presence of triple phosphates in the blood. Lithia combines with the phosphate of soda in the blood and forms or helps to form the insoluble triple phosphates. As the ordinary phosphates keep the uric acid in solution, conversely their combinations with lithia to form the triple phosphate throws them out of solution to be deposited as crystals or calculi in various parts of the body. Dr. A. C. Croftan of Chicago in an article in the *Journal of the A. M. A.* summarizes a study of this subject as follows: In the urine normally we find mono-sodium phosphate, $\text{Na H}_2\text{PO}_4$, and di-sodium phosphate, Na_2HPO_4 . Uric acid is readily soluble in di-sodium phosphate, but not soluble in the mono-sodium phosphate. The addition of the mono-phosphate to a solution of the di-phosphate containing the uric acid will cause the precipitation of the acid. It is clear therefore, that the solubility of uric acid in the urine is enhanced by the presence therein of the di-sodium phosphate and that the tendency to its deposition increases in a direct ratio with the amount of mono-sodium phosphate excreted by the kidneys. He advises the use of carbonate of calcium in 10 or 15 gr. doses, two or three times a day with a full glass of water. This remedy does not alkalinize the urine and can be taken for long periods of time without derangement of the stomach or circulatory system.

In acute conditions, where there is pain and fever, the usual treatment is to give alkalis. This is good treat-

ment if lithia is excepted. The phosphate of soda in the blood in its office of maintaining a solution of uric acid, is assisted by all other alkalies. An alkali given with this object in view will dissolve out of the tissues the uric acid of storage and the while this is being done the urine will be scanty and heavy with it. As soon as the acid retention is done away, the blood pressure falls and the urine becomes plentiful and less acid; this is due, theoretically, to the removal of the condition of the uric acid, thus freeing the capillary circulation and lowering

the blood pressure. We all know the difficulties encountered in giving the effective alkalies. Soda salicylate, which is the one in commonest use, is almost unusual and impossible after the first few days; so that when we get rid of our initial supply, or storage supply of uric acid, by the use of alkalies, we should manage to prevent its recurrence, not by the use of alkalies, but by regulating the intake of acid and by neutralizing the elements which assist in its formation before they are taken up by the circulation, that is, in the alimentary tract.

MEDICINE IN THE BIBLE.

BY HARRY S. BERNSTEIN, M.D., MEDICAL HOUSE OFFICER, BOSTON CITY HOSPITAL.

It is only within relatively recent years that the medical art has been divided into various branches. Each branch has developed independently and become so distinctive that its beginning is often overlooked. It is interesting, therefore, to seek in ancient times information regarding the early status of medicine. Although no strictly medical treatises have been handed down to us from before the days of Aristotle, it is evident that many fundamental concepts were even then recognized. No writing of this period casts so much light on the medicine of the time as does the Bible. Both the subject-matter of Scripture and its figures of speech present valuable evidence on the extent and nature of early medical knowledge and on the medical origin of certain religious customs.

The practice of medicine was then carried on by men who were regarded as the messengers of God. "I kill, and I make alive; I have wounded, and I heal," God said to Moses, and the physicians were the executors of this decree. The term "physician" in fact occurs eleven times in the Old and New

Testaments; and in Exodus it is written, "If men contend, and one smiteth the other and he die not, but keep his bed: then shall he who smote him pay for the loss of his time, and shall cause him to be thoroughly healed." This passage would indicate that physicians' fees were likewise in vogue. Jesus also had said, "They that are whole have no need of a physician, but they that are sick."

Of anatomy and physiology the knowledge was scant and was derived solely from observations of animals when prepared for sacrifice. This was so since dissection meant the dishonoring of the dead, and it was not until this prejudice was overcome that anatomy became a more exact science. Metaphorical references to internal organs, however, do occur and these were based upon the empiricism of the slaughter-house. Job, in despair, laments that "God poureth out his gall upon the ground." In the first chapter of Leviticus such parts are mentioned as the priests would likely notice in sacrificing animals. Thus the head and the fat of the omentum are to be separated. And in case of fowls,

the feathers and crop are to be cast aside. An early anatomical reference is made in Genesis wherein Jacob's thigh was strained as he wrestled one night with a man of God. "Therefore the children of Israel eat not the sinew of the hip which is upon the hollow of the thigh, unto this day." The sciatic nerve which is here referred to is thus included amongst forbidden articles of diet. Again, "as the apple of his eye did God keep his people" is one of the expressions of Moses in his song of triumph. But the heart is the organ most frequently mentioned, and in virtue of its inward location it came to be the seat of psychical life. Even the pericardium was recognized as a distinct structure, for "I will rend the caul of their heart" is the word of God that came through the prophet Hosea when Israel was rebuked for its idolatry.

The first physiological concept is to be found in the ninth chapter of Genesis. Herein Noah and his sons are told that every living thing may be used as food. But "flesh with the life thereof, which is the blood thereof, shall ye not eat" was a command given to them and observed until this day. In Ecclesiastes, however, there is a passage the interpretation of which has given rise to discussion. The preacher, in contemplating old age, portrays the approach of death as follows: "Or ever the silver cord be loosed, or the golden bowl be broken, or the pitcher be broken at the fountain or the wheel broken at the cistern." Tayler Lewis suggests that the silver cord refers to the spinal cord, a part of the central nervous system which is encased by the golden bowl, that is, the cranium. Some of the commentators are of the opinion also that the heart is alluded to by the words "cistern and fountain" and that the word "wheel" is used to give the impression of a cycle. It cannot be that the circulation of the blood was then understood. But when we recall the words of Aristotle of a later era "that every organ-

ism is in the nature of a cycle, something going round and returning unto itself," we cannot help feeling that the preacher's concept was a foreshadowing of Harvey's great discovery.

Of embryology, the knowledge was of necessity very much limited. Yet the two following passages indicate some views of the mysteries of life. Job in protest against God's treatment of him says: "Hast thou not poured me out as milk, and curdled me like cheese? Thou hast clothed me with skin and flesh, and knit me together with bones and sinews." Similarly, the Psalmist thus expressed himself, "I will give thanks unto thee; for I am fearfully and wonderfully made. My frame was not hidden from thee, when I was made in secret, and curiously wrought in the lowest parts of the earth. Thine eyes did see my imperfect substance." But the details of development were considered far beyond human knowledge. For in the words of the preacher, "as thou knowest not what is the way of the spirit, even so thou knowest not the work of God who maketh all."

It is, however, in pathological references that the Old and New Testaments abound. There is scarcely any disease known to the medical profession that is not suggested in them. The mention of wasting and febrile diseases is frequently made. A most elaborate treatise on leprosy is contained in the thirteenth chapter of Leviticus. Other skin lesions such as scabies, the scurf of the head and beard, the tinea of the present day and the boils with which the Egyptians were afflicted were likewise well defined.

The following passage, also, will serve as an illustration of the many cases of fainting that occur. When Eli, the aged man, learned of the capture of the Ark by the Philistines, he "fell from off his seat backward by the side of the gate, and his neck brake, and he died." This presents the picture of syncope with fatal complication. Moreover, the cases of neurological interest are many.

When Jeroboam was warned by a man of God, he beckoned with his arm to have the latter arrested. Thereupon, "the hand which he put forth dried up, so that he could not draw it back again to him." His wrath had so increased his intracranial pressure that the consequent rupture of a vessel over the motor arm area caused a brachial paralysis. In the gospel, too, the man with the withered hand that was healed by the Master must have been the victim of infantile paralysis. And what more accurate description of epilepsy is there than the case of the boy given in St. Luke as follows: "Behold, a spirit taketh him, and he suddenly crieth out; and it tear-eth him that he foameth, and it hardly departeth from him, bruising him sorely." Likewise an ancient parallel of a modern brainstorm is furnished by Nebuchadnezzar, when, according to the Scriptural account, "he was driven from men and did eat grass as oxen and his body was wet with the dew of heaven." Now since all diseases were regarded as the visitations of an angry God, divine aid was implored for their cure. "Bless Jehovah, O my soul, who healeth all diseases," the Psalmist sang. Yet there are evidences of therapeutic measures which are still in good repute. Thus when the arm of Pharaoh was broken, "a bandage was put on to bind it, that it be strong to hold the sword," so the prophet Ezekiel tells us. When Naaman, captain of the Syrian army, dipped himself seven times in the Jordan, he was cured of his leprosy. That this water-cure was an effective measure may be concluded from the words of the same prophet, "and the waters of the sea shall be healed, and everything shall live whithersoever the river cometh." In fact, the analogue of this form of treatment is to be found in the numerous bathing resorts of Germany and France and in the various hydro-therapeutic establishments. In addition, Solomon's prescription, "Give strong drink unto him that is ready to perish"

is followed out to the letter. The administration of strong drink is an approved means of treatment in septicemia and the crises of pneumonia at the present time. Moreover, the wine mingled with gall that was offered to the great Teacher by the soldiery is believed to be the sole example of an anodyne that occurs in the Bible. But even then as now there were cases obstinate to treatment. A woman is spoken of in St. Luke "who had spent all her living upon physicians, and could not be healed of any." St. Mark adds that this "woman had suffered also many things of many physicians."

It is, however, in the matter of hygiene that the fathers showed their wisdom, and their methods have been substantiated by the results of research after the lapse of centuries. In the Book of Numbers there is an ordinance which makes him unclean for seven days who "toucheth the dead body of any man." This placed an individual under quarantine who perchance might have become infected by contact with the skin or secretions of the dead. The sick were similarly to be isolated and the lepers were to be kept outside the camps and away from the highways. Bathing of person was obligatory. One had to bathe after touching a dead man or beast or a leper or after touching anything that the diseased one had touched. There is in this requirement a strong suggestion of the "scrub-up" in hospital parlance. Especially noteworthy is the address of Eleazar, the priest, to the children of Israel after their victory over the Midianites. He expounded the law which required them "to make go through the fire" everything of the booty that may abide the fire and all that abideth not the fire, they must make go through the water. This presumably is sterilization by the dry and wet method respectively.

The Scriptures, therefore, depict a condition of medical practice to which

the present age of advancement gives its approval. But the Bible has ever been regarded as the source of spiritual life. Inspired by its teachings, theologians have preached to countless generations the doctrine of love and charity

toward fellow-man. It is, accordingly, fitting that this same Bible contain a subtle literature of ancient medicine on which is based rational service to suffering mankind.—*Boston Medical and Surgical Journal*, February 11, 1907.

A SUGGESTION CONCERNING THE INCREASED LONGEVITY OF LIFE INSURANCE POLICY-HOLDERS.*

BY BURNSIDE FOSTER, M.D., ST. PAUL, MINN.

Modern medicine has, above all, two chief aims, the prevention of disease and the recognition of its earliest signs in the individual. In both of these aims the business of life insurance has an immense interest, since the nearer we approach to their accomplishment the more we add to human longevity. I was much interested in reading the address of Prof. Irving Fisher, delivered before this body at its meeting in February last, on the "Economic Aspect of Lengthening Human Life," and his plea for concerted action on the part of life insurance companies to lend their financial aid to the cause of preventive medicine, is one which meets with my hearty sympathy and approval. I do not know when or where the idea of enlisting the life insurance companies in the cause of preventive medicine originated, but it has been in my own mind for a good many years. In the course of an address delivered in 1902 before the Minnesota State Sanitary Association and published in *American Medicine*, Vol. V, Nos. 11 and 12, (1903) I alluded to it in the following sentences which I should like to quote at this time, to prove that the idea is not a new one.

"The business which more than any other is directly concerned with the health of the people is the life insurance business, and when we consider

the enormous amount of capital invested in this business and the enormous numbers of people, including both the insurers and insured, who are interested in it, it would seem that life insurance companies might form a powerful combination which would be capable of accomplishing a vast amount of good in this direction. Fire insurance companies have found the support of salvage corps as adjuncts to the regular municipal fire departments to be a very profitable investment. In an analogous, but somewhat different way, I believe that life insurance companies would find it profitable to use their money and their influence in supporting the work of municipal boards of health, and also, perhaps, in pursuing and maintaining independent investigations of the many problems concerning sanitation which remain yet to be solved.

"The companies pay out annually millions of dollars for death losses which result from preventable diseases. Would it not be profitable from the business point of view alone to spend some of this money in endeavoring to prevent some of these diseases? Of course life insurance companies would be unable, in case they should pursue any such policy as the one suggested, to know just what lives they were saving, and they would, of course, assist in saving many lives that were not in-

*Address delivered at the regular bi-monthly meeting of the Association of Life Insurance Physicians, New York City, on the afternoon of Friday, April 1, 1906.

sured. Fire insurance salvage corps assume that all threatened property is insured and endeavor to protect it all; I believe that the life insurance companies could well afford to do the same.

"If all the life insurance companies would combine and set aside each year a fund to be devoted to a co-operative investigation of some of the problems of preventive medicine an immense amount of good would be accomplished at an expense which would be trifling to each company, and the direct return to the companies would be very large."

Preventive medicine becomes more nearly an exact science all the time and while its possibilities are far from being realized, this is not because of its own inexactness or shortcomings, but because the people have not yet awakened to the fact that those diseases which cause the greatest number of deaths and the greatest amount of suffering are actually preventable, if money enough is spent to prevent them. The only way to enlist all the people actively in the crusade against preventable disease is to present the subject as an economic one, which it surely is, and one which appeals directly to their pocket books. I am glad that life insurance companies are beginning to be interested in it from this point of view. Its study will prove profitable to them and will afford a most valuable object lesson to the people.

I have another suggestion to make, which I was especially invited to make to you at this meeting by your general counsel and manager, and which is distinctly germane to the subject of preventive medicine as well as to the economic conduct of the business of life insurance.

As far as their policy-holders are concerned, life insurance companies have two chief objects in view: First, that every policy-holder shall be phy-

sically sound when his policy is issued, and second, that he shall live as long and pay as many annual premiums as possible. These two conditions are also of great importance to the policy-holders themselves because a low death rate means a smaller cost of insurance and also because every one wants to live as long as possible. All life insurance companies are careful, some more so than others, to see that their risks are carefully selected, and on the whole I believe that the medical examinations for life insurance in this country are rigorously and honestly made, and that the great majority of accepted applicants are sound at the time their policies are issued. This, of course, is as it should be, but so far as I know no effort is made by any life insurance company to keep in touch with the physical condition of its policy-holders after their policies are issued. Life insurance companies will, of course, admit that anything which would add five or ten or more years to the average longevity of their policy-holders, so that they would pay just that many more annual premiums, would be an immensely valuable stroke of business. I believe that this very thing is possible although, of course, I would not go so far as to state anything definite as to the average increased longevity that might be brought about. There is probably not a physician who has not many times in his experience detected, while examining a patient for some other purpose, the early signs of some beginning organic disease, of which the patient had no suspicion. In such cases the early recognition of the first evidences of the disease has enabled the physician to so order the life of his patient as to prevent the further progress of the disease, if it is a curable one; or to retard its progress and to enable the patient to live much longer than he would have

lived had the disease not been detected until later.

Many persons die of kidney disease, of tuberculosis, of cancer, of diabetes, of heart disease, and of other diseases every year, and many millions of dollars are paid by the life insurance companies which have issued policies on the lives of these persons, who were sound when the policies were issued, and who might have lived much longer and paid many more annual premiums if the diseases which caused their deaths had been recognized and properly treated in their earliest stages. To a medical audience it would not be necessary to go into details in regard to this statement, and perhaps to this audience it is not appropriate to do so, but I am sure that you will all understand that, diabetes, for instance, begins very insidiously and is often present for many months, perhaps years, without symptoms, and its presence is very apt to be first recognized as the result of an examination of the urine, made for some other purpose. You can also readily understand that if diabetes is detected in its very earliest stages and the patient put upon appropriate treatment at once, he will live much longer than if it is allowed to go on unsuspected, until treatment is of little avail.

So, too, the early diagnosis of tuberculosis, of cancer, of heart disease means a better chance for recovery and a longer life for the individual. These are the very diseases which figure most largely in your mortality tables. My contention is that it is perfectly possible to recognize, in many cases, the early signs of these diseases before the individual suspects that any evidence of disease is present, and that life insurance companies would save large amounts of money which they now pay in death losses by inaugurating a plan of systematic re-examination of all their policy-holders at regular intervals,

say every five years. This, of course, could not be made compulsory on all policy-holders, but I believe that the great majority, if the reasons for the examination were explained to them, would be very glad to report to the medical examiner at a specified time and submit to the necessary examination.

The expense to the companies would be trivial, and in certain cases where the policy-holder was insured in two or more companies, the expense might be easily divided. Indeed, the companies might enter into an agreement for the exchange of information regarding all policy-holders as they now do in regard to rejected or postponed applications, and still further reduce the expense. The details of the plan which I suggest would, of course, have to be carefully worked out by the companies, but I feel certain that by adopting some such plan as I have in mind, the statistics of life insurance companies would in a few years show a greatly reduced mortality with correspondingly increased profits to the business, and a lessening of the cost of life insurance. The whole tendency of modern medicine is toward the early recognition and the prevention of disease, and the life insurance company which first makes a practical application of this principle to its business will not only bring about a revolution in the business of life insurance, but will also confer an immense and lasting benefit to the world.

It has been my experience, and other physicians have had the same experience, that there is a constantly increasing number of individuals who are adopting the custom of presenting themselves to physicians at stated intervals, not because they think they are sick, but for the purpose of being examined to ascertain if their organs are sound and their functions being prop-

erly performed. This would indicate that the importance of the early recognition of evidences of disease is being recognized. I have several times as the result of such an examination had the experience of detecting the beginning of some chronic disease, unsuspected by the individual, and I am positive that this discovery followed by appropriate advice has added some years to the life of that individual. Surely, the regular periodic examination of a large percentage of the immense group of individuals represented by the policy-holders of the life insurance companies of this country, would bring to light many instances of incipient disease which appropriate treatment would either cure or check, and it is equally sure that the average longevity of this group of individuals would be increased. I am also convinced, that, if a carefully worded letter were sent to each policy-holder at stated intervals, say every three or five years, explaining the advantages to them of such an examination and offering it to them without charge, as one of the benefits conferred by their policies, a very large majority of them would avail themselves of the privilege.

Life insurance, the most beneficent and philanthropic of all businesses, and the profession of medicine have for years worked together in the study of many problems having to do with human life. Aside from the humanitarian point of view the business of life insurance has an immense financial interest in the increase of human longevity; and in spending money to aid in the accomplishment of the aims of preventive medicine, the companies may legitimately charge the amounts thus expended to the regular expense accounts of their business. Medicine is expected to do much and does much in the name of sentiment, charity and philanthropy. Life insurance companies cannot spend

the money of their stockholders or their policy-holders for such purposes, but when sentiment and philanthropy also spell more premiums from policy-holders, and hence cheaper insurance, they not only may, but must invest in them. I look forward with confidence to the time when preventable diseases will be prevented and when curable diseases will be recognized in the curable stage and will be cured, and I believe the grandest triumphs of civilization will be the achievements which will result from a realization of the possibilities of preventive medicine. The coming of this time will also mark a new era in life insurance. As an additional suggestion I append a draft of a letter which, or some modification of which, would, I feel sure, induce a very large proportion of policy-holders to report for examination at stated intervals:

SUGGESTED LETTER TO POLICY-HOLDERS.

"My Dear Sir:—As a policy-holder in this company you are directly interested in the economic conduct of its business, since the amount of your dividends, and hence the cost of your insurance, depends upon the profits earned each year over and above the cost of carrying on the business. You are also, it is presumed, interested in your own individual longevity and would like to live as long as possible. We hope, therefore, that you will read this letter carefully and that you will be willing to accede to the request contained in it. It is well known to physicians that very many of the diseases of which people ultimately die, have existed a long time before their symptoms have been noticed by the patient, and that when the patient finally consults a physician, it is often too late to do all that might have been done if the disease had been detected earlier. Many diseases may be checked or cured in their early stages. Many individuals are beginning to realize this and the custom of consulting

a physician at stated intervals for the purpose of being examined to ascertain the presence or absence of the early signs of disease is growing to be a common one. We have decided to offer our policy-holders, as one of the benefits of their policy, an opportunity to receive such an examination, at stated intervals, without charge to them. You have now been a policy-holder in this company for.....years and we should be glad to know that you are in the same good physical condition at the present time as you were at the time your policy was issued; if on the other hand you have at the present time any evidence of the beginning of any disease it is for your interest as well as for ours that it should be detected, in order that you may put yourself in the way of being cured if possible. We should be very glad if you would present yourself to our examiner, Dr.between theand the.....of this month for examination, taking the enclosed blank with you.

"There will be no expense attached to this examination, and of course all information in regard to it will be held as confidential between the examiner and the company. There is no obligation on your part to have this examination made, and it has of course no bearing on the status of your policy, but since the interests of all our policy-holders are affected by having as large a number of them periodically examined as possible, we hope that you will accede to our request.

"Yours very truly."

It occurs to me that the directors of life insurance companies in considering, if they do consider, the suggestion I have made today, may fairly look at it from another point of view, besides that of adding to the longevity of their policy-holders. The problem concerning the prevention of disease, concern-

ing the prolongation of life and concerning public and private hygiene are being talked about, and thought about, and studied by the people, at the present time, more intelligently and more earnestly than ever before in the history of the world; this is undoubtedly the case. I believe it is also true, that events of the last few years have shaken to some extent the faith of the people in life insurance, as a business. Life insurance as an institution, as a protection to the family, stands as firmly as ever, but unfavorable public sentiment has been aroused by the publicity which has been given to some of the business methods which have been practiced by some of the life insurance companies. Would it not be a good thing for the business of life insurance, if the public were to learn that the companies, besides offering a protection to the family, after the death of the bread-winner, were earnestly and seriously engaged in a concerted effort to protect the bread-winner during his life? I believe it would, and I believe that if the business of life insurance and the profession of medicine, were to join hands on the platform of preventive medicine, they would both earn the gratitude of humanity. The financial rewards to the life insurance companies would also be great; the people would share largely in the financial benefits, since the cost of their insurance would be lessened, and the medical profession, while not profiting financially—indeed, preventive medicine is directly against the financial interests of the medical profession—would take pride in its share of the added benefits to mankind. When preventive medicine becomes actually preventive, a large number of diseases, notably the communicable diseases, will become practically extinct, just as the bubonic plague and cholera are now practically extinct in most highly civilized com-

munities. It will be necessary, however, in order to keep the sanitary defenses of a nation properly manned, to have at all times a large standing sanitary army of medical men who will be servants of the state rather than servants of the individual. This is the ideal future of the medical profession.

The possibilities of properly directed scientific effort in the control of disease in animals have been amply demonstrated by the United States Government in the work that has been done during the last twenty-five years by the Department of Agriculture in protecting hogs, cattle and domestic fowls from the many pests which formerly were so fatal to these animals, and the millions expended by the Government in this work have been returned many times in the form of increased profits to the farmers and stock raisers, and have added immensely to our national prosperity. The problems of the control of the diseases of mankind are not very different from the problem of the control of the diseases of beasts. Are not its citizens at least as great an asset

to a nation as its hogs? The Government undertook the matter of protecting the lives of its hogs and cattle because the people demanded it. When the people demand it, it will also undertake to protect the lives of its citizens. It is as simple a problem to drive typhoid fever out of the United States as it was to banish yellow fever from Havana and from Panama. The medical profession has for years been pleading for governmental aid in their efforts to prevent preventable disease. It has pleaded to deaf ears. Let the immense influence of the life insurance companies be brought to bear upon the Government in this matter, and those ears will be deaf no longer. Whether, gentlemen, the directors of the companies represented in this Association see any merit in any definite suggestion I have made to you today, or not, is a small matter, compared with the immense educational value to the people, of witnessing an active effort on the part of the great institutions which you represent, to prevent preventable disease and to add to human longevity.

ARIZONA VITAL STATISTICS.

AN ACT.

TO PROVIDE FOR THE IMMEDIATE REGISTRATION OF ALL BIRTHS AND DEATHS THROUGHOUT THE TERRITORY OF ARIZONA BY MEANS OF CERTIFICATES OF BIRTH AND DEATHS, AND BURIAL OR REMOVAL PERMITS; TO REQUIRE PROMPT RETURNS TO THE BUREAU OF VITAL STATISTICS AS REQUIRED TO BE ESTABLISHED BY THE TERRITORIAL BOARD OF HEALTH TO INSURE THOROUGH ORGANIZATION AND EFFICIENCY OF THE REGISTRATION OF VITAL STATISTICS THROUGHOUT THE TERRITORY; TO PROVIDE CERTAIN PENALTIES; TO REPEAL ALL ACTS AND PARTS OF ACTS IN CONFLICT HEREWITH.

Be it Enacted by the Legislative Assembly of the Territory of Arizona:

SECTION I. That the Territorial Board of Health shall have charge of registration of births and deaths; to prepare the necessary methods, forms and blanks for obtaining and preserv-

ing such records and to insure the faithful registration of the same in the townships, cities, counties and in the central bureau of vital statistics at the office of the Secretary of the Territorial Board of Health. The said board shall be charged with the uni-

form and thorough enforcement of the law throughout the Territory, and shall from time to time promulgate any additional forms and amendments that may be necessary for this purpose.

SEC. 2. That the several County Boards of Health in the Territory of Arizona shall have charge of the registration of births and deaths within their respective counties and shall be charged with the uniform and thorough enforcement of the law throughout their respective counties, subject to the supervisory control of the Territorial Board of Health and the Territorial Registrar of vital statistics.

SEC. 3. That the Secretary of the Territorial Board of Health shall have general supervision over the central bureau of vital statistics, which is hereby authorized to be established by said board, and shall be the Territorial Registrar of vital statistics. He shall receive an annual salary at the rate of One Thousand (\$1000.00) Dollars from the date of the taking effect of this law, to be paid in equal installments at the end of every three (3) months; in addition to his salary as Territorial Superintendent of Public Health. He shall also be allowed annually a sum not to exceed One Thousand (\$1000.00) Dollars for the purchase of official books, records, files, certificates and papers, and for other necessary expense that may be incurred in the proper conduct of his office. Suitable fireproof vault and filing cases for the permanent and safe preservation of all official records made and returned under this act shall be provided by the custodian of the Capitol for the bureau of vital statistics in the Territorial Capitol at Phoenix.

The accounts of the Territorial Registrar of Vital Statistics shall be audited by the Territorial Board of Health and the same, together with his salary, shall be paid out of the Territorial treasury.

SEC. 4. That for the purpose of this act the Territory shall be divided into registration districts as follows: Each city and incorporated town shall constitute a primary registration district; and for that portion of each county outside of the cities and incorporated towns therein the several county Boards of Health shall define and designate the boundaries of a sufficient number of rural registration districts, which they may change from time to time as may be necessary to insure the convenience and completeness of registration.

SEC. 5. That the Secretary of each County Board of Health in the Territory shall be county registrar of vital statistics for that county, and that within thirty (30) days after the taking effect of this act, or as soon thereafter as possible, each County Board of Health shall appoint a local registrar of vital statistics for each registration district in that county, and the county registrar shall immediately report the names and addresses of such local registrars to the Territorial Registrar of Vital Statistics. The terms of office of local registrars, appointed by said boards, shall be for two (2) years, beginning with the first day of January of the year in which this act shall take effect, and their successors shall be appointed at least ten (10) days before the expiration of their terms of office; provided, that in cities where health officers or other officials are conducting effective registration of births and deaths under local ordinances at the time of the taking effect of this act, such officials shall be appointed as local registrars in and for such cities, and shall be subject to the rules and regulations of the Territorial Registrar, and to all of the provisions of this act.

Any local registrar, appointed by said county board, who fails or neglects to discharge efficiently the duties of his office as laid down in this act, or who fails to make prompt and complete re-

turns of births and deaths, as required thereby, shall be forthwith removed from his office by said County Board of Health, and his successor appointed, in addition to any other penalties that may be imposed, under other sections of this act, for failure or neglect to perform his duty.

Each local registrar appointed by said County Board shall, immediately upon his acceptance of appointment as such, appoint a deputy, whose duty it shall be to act in his stead in case of absence, illness or disability, who shall in writing accept such appointment, and who shall be subject to all rules and regulations governing the action of local registrars. And when it may appear necessary for the convenience of the people in any rural district, the local registrar is hereby authorized, with the approval of the county registrar, to appoint one or more suitable persons to act as sub-registrars, who shall be authorized to receive certificates and to issue burial or removal permits in and for such portions of the district as may be designated; and each sub-registrar shall note, over his signature, the date on which each certificate was filed, and shall forward all certificates to the local registrar of the district within five (5) days, and in all cases before the third day of the following month; provided, that all sub-registrars shall be subject to the supervision and control of the county registrar, and may be by him removed for neglect or failure to perform their duties in accordance with the provisions of this act or the rules and regulations of the Territorial Registrar, and they shall be liable to the same penalties for neglect of duties as the local registrar.

SEC. 6. That the body of any person whose death occurs in the Territory shall not be interred, deposited in a vault or tomb, cremated or otherwise disposed of, or removed from or into any registration district or be tempo-

rarily held pending further disposition more than seventy-two (72) hours after death, until a permit for burial, removal or other disposition thereof shall have been properly issued by the local registrar of the registration district in which the death occurred. And no such burial or removal permit shall be issued by any registrar until a complete and satisfactory certificate of death has been filed with him as hereinbefore provided; provided, that when a dead body is transported by common carrier into a registration district in Arizona for burial, then the transit and removal permit, issued in accordance with the law and health regulations of the place where the death occurred, when said death occurs outside of the Territory of Arizona, shall be accepted by the local registrar of the district, into which the body has been transported for burial or other disposition, as a basis upon which he shall issue a local burial permit, in the same way as if the death occurred in his district, but shall plainly enter upon the face of the burial permit the fact that it was a body shipped in for interment, and give the actual place of death; but a burial permit shall not be required from the local registrar of the district in which interment is made, when a body is removed from one district in Arizona to another in the Territory, for purpose of burial or other disposition, either by common carrier, hearse, or other conveyance; and no local registrar shall, as such, require from undertakers or persons acting as undertakers any fee for the privilege of burying dead bodies.

SEC. 7. That stillborn children or those dead at birth shall be registered as births and also as deaths, and a certificate of both the birth and death shall be filed with such local registrar, in the usual form and manner, the certificate of birth to contain, in place of the name of the child, the word "stillbirth." The medical certificate of the cause of death

shall be signed by the attending physician, if any, and shall state the cause of death as "stillborn," with the cause of the stillbirth, if known, whether a premature birth, and, if born prematurely, the period of uterine gestation, in months, if known; and a burial or removal permit in the usual form shall be required. Midwives shall not sign certificates of death for stillborn children; but such cases, and stillbirths occurring without attendance of either physician or mid-wife, shall be treated as deaths without medical attendance, as provided for in Section 9 of this act.

SEC. 8. That the certificate of death shall contain the following items:

(1) Place of death, including State, county, township, city, the ward, street and house number. If in a hospital or other institution, the name of the same to be given instead of the street and house number. If in an industrial camp, the name of the camp to be given.

(2) Full name of decedent. If an unnamed child, the surname preceded by "unnamed."

(3) Sex.

(4) Color or race—as white, black (negro or negro descent), Indian, Chinese, Japanese, or other.

(5) Conjugal condition—as single, married, widowed or divorced.

(6) Date of birth, including the year, month, and day.

(7) Age, in years, months, and days.

(8) Place of birth; State or foreign country.

(9) Name of father.

(10) Birthplace of father; State or foreign country.

(11) Maiden name of mother.

(12) Birth of mother; State or foreign country.

(13) Occupation. The occupation to be reported of any person who had any remunerative employment; women as well as men.

(14) Signature and address of informant.

(15) Date of death, year, month and day.

(16) State of medical attendance on decedent, fact and time of death, time last seen alive.

(17) Cause of death, including the primary and contributory causes or complications, if any, and duration of each.

(18) Signature and address of physician or official making the medical certificate.

(19) Length of residence at place of death and in State. Special information concerning deaths in hospitals and institutions, and of persons dying away from home, including the former or usual residence, and place where the disease was contracted.

(20) Place of burial or removal.

(21) Date of burial or removal.

(22) Signature and address of undertaker.

(23) Official signature of local and county registrars, with the date when certificate was filed, and registered number.

The personal and statistical particulars (Items 1 to 13) shall be authenticated by the signature of the informant, who may be any competent person acquainted with the facts.

The statement of facts relating to the disposition of the body shall be signed by the undertaker or person acting as such.

The medical certificate shall be made and signed by the physician, if any, last in attendance on the deceased, who shall specify the time in attendance, the time he last saw the deceased alive, and the hour of the day at which death occurred. And he shall further state the cause of death, so as to show the course of disease or sequence of causes resulting in the death, giving the primary cause, and also the contributory causes, if any, and the duration of each. Indefinite and unsatisfactory terms, including only symptoms of disease or

conditions resulting from disease, will not be held sufficient for issuing a burial or removal permit; and any certificate containing only such terms as defined by the Territorial Registrar shall be returned to the physician for correction and definition. Causes of death, which may be the result of either disease or violence, shall be carefully defined and if from violence its nature shall be stated, and whether (probably) accidental, suicidal, or homicidal. And in case of deaths in hospitals, institutions, or away from home, the physician shall furnish the information required under this head (Item 20), and shall state where, in his opinion, the disease was contracted.

SEC. 9. That in case of any death occurring without medical attendance, it shall be the duty of the undertaker to notify the local registrar of such death, and when so notified the registrar shall inform the local health officer and refer the case to him for immediate investigation and certification, prior to issuing the permit; provided that in such isolated districts where the local registrar cannot communicate with the local health officer within six hours after such notification of death, and in such cases only, the registrar is authorized to make the certificate and return from the statement of relatives or other persons having adequate knowledge of the facts; provided, further, that if the death was caused by unlawful or suspicious means, the registrar shall then refer the case to the Coroner for his investigation and certification. And any Coroner whose duty it is to hold an inquest on the body of any deceased person, and to make the certificate of death required for a burial permit, shall state in his certificate the name of the disease causing death, or the means of death; causes or violence, and whether (probably) accidental, suicidal, or homicidal, as determined by the inquest; and shall, in either case, furnish such

information as may be required by the Territorial Registrar properly to classify the death.

SEC. 10. That the undertaker, or person acting as undertaker, shall be responsible for obtaining and filing the certificate of death with the local registrar of the district in which the death occurred, and securing a burial or removal permit, prior to any disposition of the body. He shall obtain the personal and statistical particulars required from the person best qualified to supply them, over the signature and address of his informant. He shall then present the certificate to the attending physician, if any, or to the health officer or coroner, as directed by the local registrar, for the medical certificate of the cause of death and other particulars necessary to complete the record, as specified in Section 9. And he shall then state the facts required relative to the date and place of burial, over his signature and with his address, and present the completed certificate to the local registrar, who will issue a permit for burial, removal or other disposition of the body. The undertaker shall deliver the burial permit to the sexton, or person in charge of the place of burial, before interring or otherwise disposing of the body; or shall attach the transit permit containing the registration removal permit to the box containing the corpse, when shipped by any transportation company; said permit to accompany the corpse to its destination, where, if within the Territory of Arizona, it shall be delivered to the sexton or to other person in charge of the place of burial.

SEC. 11. That if the interment, or other disposal of the body is to be made within the Territory, the wording of the burial permit may be limited to a statement by the registrar, and over his signature that a satisfactory certificate of death having been filed with him, as required by law, permission is granted

to inter, remove, or otherwise dispose of the deceased, stating the name, age, sex, cause of death, and other necessary details upon the form prescribed by the Territorial Registrar.

SEC. 12. That no sexton or person in charge of any premises in which interments are made shall inter or permit the interment or other disposal of any body unless it is accompanied by a burial, removal or transit permit, as herein provided. And each sexton, or person in charge of any burial ground, shall indorse upon the permit the date of interment, over his signature, and shall return all permits so indorsed to the local registrar of his district within five (5) days from the date of interment, or within the time fixed by the local board of health. He shall also keep a record of all interments made in the premises under his charge, stating the name of the deceased person, place of death, date of burial, and name and address of the undertaker; which record shall at all times be open to public inspection.

SEC. 13. That all births that occur in the Territory shall be immediately registered in the districts in which they occur, as hereinafter provided.

SEC. 14. That it shall be the duty of the attending physician or midwife to file a certificate of birth, properly and completely filled out, giving all the particulars required by this act, with the local registrar of the district in which the birth occurred, within five (5) days after the date of birth. And if there be no attending physician or midwife, then it shall be the duty of the father or mother of the child, householder or owner of the premises, manager or superintendent of public or private institutions in which the birth occurred, to notify the local registrar within five days after the birth, of the fact of such a birth having occurred. It shall then, in such case, be the duty of the local registrar to secure the necessary in-

formation and signature to make a proper certificate of birth; provided that in cities the certificate of birth shall be filed at a less interval than five days after birth, if so required by municipal ordinance now in force or that may hereafter be enacted.

SEC. 15. That the certificate of birth shall contain the following items:

(1) Place of birth, including State, county, township or town, village, or city. If in a city, the ward, street, and house number; if in a hospital or other institution, the name of the same to be given, instead of the street and house number.

(2) Full name of child. If the child dies without a name, before the certificate is filed, enter the words "died unnamed." If the child has not yet been named at the date of filing certificate of birth, the space for "full name of child" is to be left blank, to be filled out subsequently by a supplemental report, as hereinafter provided.

(3) Sex of child.

(4) Whether a twin, triplet, or other plural birth. A separate certificate shall be required for each child in case of plural birth, giving number of child in order of birth.

(5) Whether legitimate or illegitimate.

(6) Full name of father.

(7) Residence of father.

(8) Color or race of father.

(9) Birthplace of father; State or foreign country.

(10) Age of father at last birthday, in years.

(11) Occupation of father.

(12) Maiden name of mother.

(13) Residence of mother.

(14) Color or race of mother.

(15) Birthplace of mother; State or foreign country.

(16) Age of mother at last birthday, in years.

(17) Occupation of mother.

(18) Number of child of this mother, and number of children of this mother now living.

(19) Born at full term?

(20) The certificate of attending physician or midwife as to attendance at birth, including statement of year, month, day and hour of birth, and whether the child was alive or dead at birth. This certificate shall be signed by the attending physician or midwife, with date of signature and address; if there is no physician or midwife in attendance, then the father or mother of the child, household or owner of the premises, or manager or superintendent of public or private institution, or other competent person, whose duty it shall be to notify the local registrar of such birth, as required by Section 14 of this act.

(21) Exact date of filing in office of local registrar, attested by his official signature, and registered number of birth, as hereinafter provided.

All certificates, either of birth or death, shall be written legibly, in writing or by typewriting in unfading black ink, and no certificate shall be held to be complete and correct that does not supply all of the items of information called for herein, or satisfactorily account for their omission.

SEC. 16. That when any certificate of birth of a living child is presented without the statement of the given name, then the local registrar shall make out and deliver to the parents of the child a special blank for the supplemental report of the given name of the child, which shall be filled out as directed, and returned to the local registrar as soon as the child shall have been named.

SEC. 17. That every physician, midwife and undertaker shall, without delay, register his or her name, address and occupation with the local register of the district in which he or she re-

sides, or may hereafter establish a residence; and shall thereupon be supplied by the local registrar with a copy of this act, together with such rules and regulations as may be prepared by the Territorial Registrar relative to its enforcement. Within thirty days after the close of each calendar year each local registrar shall make a return to the respective county registrar of all physicians, midwives or undertakers who shall have been registered in his district during the whole or any part of the preceding calendar year; and within ten days thereafter, each county registrar shall forward a copy of such list to the Territorial Registrar; provided, that no fee or other compensation shall be charged by local registrars to physicians, midwives or undertakers for registering their names under this section or making returns thereof to the county registrar.

SEC. 18. That all superintendents or managers, or other persons in charge hospitals, almshouses, lying-in or other institutions, public or private, to which persons resort for treatment of disease, confinement, or are committed by process of law, are hereby required to make a record of all the personal and statistical particulars relative to the inmates in their institutions at the date of approval of this act, that are required in the forms of the certificates provided for by this act, as directed by the Territorial Registrar; and thereafter such record shall be, by them, made for all future inmates at the time of their admission. And in case of persons admitted or committed for medical treatment of disease, the physician in charge shall specify for entry in the record, the nature of the disease, and where, in his opinion, it was contracted. The personal particulars and information required by this section shall be obtained from the individual himself if it is practicable to do so; and when they

can not be so obtained, they shall be secured in as complete a manner as possible from relatives, friends, or other persons acquainted with the facts.

SEC. 19. That the Territorial Registrar shall prepare, print and supply to all county registrars all blanks and forms used in registering, recording, and perserving the returns, or in otherwise carrying out the purposes of this act; and shall prepare and issue such detailed instructions as may be required to secure the uniform observance of its provisions and the maintenance of a perfect system of registration. And no other blanks shall be used than those supplied by the Territorial Registrar. He shall carefully examine the certificates received monthly from the county registrars, and if any such are incomplete or unsatisfactory he shall require such further information to be furnished as may be necessary to make the record complete and satisfactory. And all physicians, midwives, informants or undertakers connected with any case, and all other persons having knowledge of the facts, are hereby required to furnish such information as they may possess regarding any birth or death upon demand of the Territorial Registrar, in person, by mail, or through the local or county registrar. He shall further arrange, bind and permanently preserve the certificates in a systematic manner, and shall prepare and maintain a comprehensive and continuous card index of all births and deaths registered; the cards to show the name of child or deceased, place and date of birth or death, number of certificate, and the volume in which it is contained. He shall inform all registrars what diseases are to be considered as infectious, contagious, or communicable and dangerous to the public health, as decided by the Territorial Board of Health, in order that when deaths occur from such diseases proper precautions may be

taken to prevent the spreading of dangerous diseases.

SEC. 20. That it shall be the duty of the county registrars to supply blank forms of certificates and such instructions as are supplied to them by the Territorial Registrar to all local registrars in their respective counties.

Each county registrar shall carefully examine each certificate of birth or death when received from the local registrars and if any such are incomplete or unsatisfactory he shall require such further information to be furnished as may be necessary to make the record complete and satisfactory.

He shall number consecutively the certificates of birth and death, in two separate series, beginning with the "number one" for the first birth and first death in each calendar year, and sign his name as registrar in attest of the date of filing in his office.

He shall also make a complete and accurate copy of each birth and death certificate registered by him to be kept and permanently preserved in his office as the local record of such birth and death in such manner as directed by the Territorial Registrar.

And he shall on the tenth (10th) day of each month transmit to the Territorial Registrar all original certificates registered by him during the preceding month.

SEC. 21. That it shall be the duty of the local registrars to supply blank forms of certificates to such persons as require them. Each local registrar shall carefully examine each certificate of birth or death when presented for record, to see that it has been made out in accordance with the provisions of this act and the instructions of the Territorial Registrar; and if any certificate of death is incomplete or unsatisfactory, it shall be his duty to call attention to the defects in the return, and to withhold issuing the burial or removal per-

mit until they are corrected. If the certificate of death is properly executed and complete, he shall then issue a burial or removal permit to the undertaker; provided, that in case the death occurred from some disease that is held by the Territorial Board of Health to be infectious, contagious, or communicable and dangerous to the public health, no permit for the removal or other disposition of the body shall be granted by the registrar except under such conditions as may be prescribed by the Territorial Board of Health. If a certificate of birth is incomplete, he shall immediately notify the informant, and require him to supply the missing items if they can be obtained. He shall immediately transmit all original certificates to the county registrar of his county. And if no births or deaths occurred in any month, he shall, on the fifth (5th) day of the following month, report that fact to the county registrar, on a card provided for that purpose.

SEC. 22. That each local registrar shall be entitled to be paid the sum of twenty-five cents for each birth and each death certificate properly and completely made out and registered with him, and correctly copied and promptly returned by him to the county registrar, as required by this act. And in case no births or deaths were registered during any month, the local registrar shall be entitled to be paid the sum of twenty-five cents for each report to that effect, promptly made in accordance with this act. All amounts payable to registrars under provisions of this section shall be paid by the treasurer of the county in which the registration districts are located, upon certification by the Territorial Registrar. And the Territorial Registrar shall annually certify to the treasurers of the several counties the number of births and deaths registered, with the names of the local registrars and the amounts due each at the rates fixed herein.

SEC. 23. That each county registrar shall receive, in addition to his salary as County Superintendent of Health, the sum of three hundred dollars (\$300.00) per annum, which shall be paid as other county expenses are paid.

SEC. 24. That the Territorial Registrar shall, upon request, furnish any applicant a certified copy of the record of any birth or death registered under provisions of this act, for the making and certification of which he shall be entitled to a fee of fifty cents, to be paid by the applicant. And any such copy of the record of a birth or death, when properly certified by the State Registrar to be a true copy thereof, shall be prima facie evidence in all courts and places of the facts herein stated. For any search of the files and records when no certified copy is made, the Territorial Registrar shall be entitled to a fee of fifty cents for each hour or fractional part of an hour of time of search, to be paid by the applicant. And the Territorial Registrar shall keep a true and correct amount of all fees by him received under these provisions, and turn the same over to the Territorial Treasurer.

SEC. 25. That if any physician who was in medical attendance upon any deceased person at the time of death shall neglect or refuse to make out and deliver to the undertaker, sexton, or other person in charge of the interment, removal, or other disposition of the body, upon request, the medical certificate of the cause of death, hereinbefore provided for, he shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be fined not less than five dollars (\$5.00) nor more than fifty dollars (\$50.00). And if any physician shall knowingly make a false certification of the cause of death, in any case, he shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be fined not less than fifty dollars

(\$50.00) nor more than two hundred dollars (\$200.00).

And any physician or midwife in attendance upon a case of confinement, or any other person charged with responsibility for reporting births, in the order named in Section 14 of this act, who shall neglect or refuse to file a proper certificate of birth with the local registrar within the time required by this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined not less than five dollars (\$5.00), nor more than fifty dollars (\$50.00).

And if any undertaker, sexton, or other person acting as undertaker, shall inter, remove, or otherwise dispose of the body of any deceased person, without having received a burial or removal permit as herein provided, he shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined not less than twenty-five dollars (\$25.00) nor more than one hundred dollars (\$100.00).

And any registrar, deputy registrar, or subregistrar who shall neglect or fail to enforce the provisions of this act in his county or district, or shall neglect or refuse to perform any of the duties imposed upon him by this act or by the instructions and directions of the Territorial Registrar, shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined not less than ten dollars (\$10.00) nor more than one hundred dollars (\$100.00).

And any person who shall wilfully alter any certificate of birth or death, or the copy of any certificate of birth or death, on file in the office of the local registrar, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not less than ten dollars nor more than one hundred dollars, or be imprisoned in the county jail nor exceeding sixty (60) days, or suffer both fine and imprisonment, in the discretion of the court.

And any other person or persons who shall violate any of the provisions of this act, or who shall wilfully neglect or refuse to perform any duties imposed upon them by the provisions of this act, or shall furnish false information to a physician, undertaker, midwife, or informant, for the purpose of making incorrect certification of births or deaths, shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined not less than five dollars (\$5.00) nor more than one hundred dollars (\$100.00).

And any transportation company or common carrier transporting or carrying, or accepting through its agents or employees for transportation or carriage, the body of any deceased person, without an accompanying permit issued in accordance with the provisions of this act, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be fined not less than fifty dollars (\$50.00) nor more than two hundred dollars (\$200.00); provided, that in case the death occurred outside of the Territory and the body is accompanied by a certificate of death, burial or removal, or transit issued in accordance with the law or board of health regulations in force when the death occurred, such death certificate, burial or removal or transit permit may be held to authorize the transportation or carriage of the body into or through the Territory.

SEC. 26. That the local registrars are hereby charged with the strict and thorough enforcement of the provisions of this act in their several districts, under the supervision and direction of the county and Territorial Registrars. And they shall make an immediate report to the county registrar of any violation of this law coming to their notice by observation or upon complaint of any person, or otherwise. That county registrars are hereby charged with the thorough and efficient execution of the

provisions of this act in every part of their respective counties, and with supervisory power over local registrars, to the end that all of its requirements shall be uniformly complied with. And they shall make an immediate report to the Territorial Registrar of any violation of this law coming to their notice by observation or upon complaint of any person or otherwise. They shall have authority to investigate cases of irregularity or violation of law, within their respective counties, personally or by accredited representative, and all local registrars shall aid them upon request in such investigation. The Territorial Registrar is hereby charged with the thorough and efficient execution of the provisions of this act in every part of the Territory, and with supervisory power over county and local registrars, to the end that all of its requirements shall be uniformly complied with. He shall have authority to investigate cases of irregularity or violation of law, personally or by accredited representative, and all registrars shall aid him, upon request, in such investigations. When he shall deem it necessary, he shall report cases of violation of any of the provisions of this act to the district attorney of the county with a statement of the facts and circumstances; and when any such case is reported to him by the Territorial Registrar, the district attorney shall forthwith initiate and promptly follow up the necessary court proceedings against the parties responsible for the alleged violations of law. And upon request of the Territorial Registrar, the attorney-general shall likewise assist in the enforcement of the provisions of this act.

SEC. 27. That this act shall be in force and effect on and after its passage.

SEC. 28. That all laws and parts of laws inconsistent with the provisions of this act are hereby repealed; and no system for the registration of births

and deaths shall be continued or maintained in any of the several municipalities of this Territory other than the one provided for and established by this act.

A writer in the *British Medical Journal*, thinks that an interesting essay might be written on the addition to medical remedies made by animals. It is said that it is to dogs that we owe the knowledge of the fever abating properties of bark, while to the hippopotamus is attributed the use of bleeding. The story as told in Philemon Holland's translation of Pliny is as follows: "The riuer-horse hath taught physitions one deuice in that part of their profession called Surgerie; for he finding himself ouergrosse and fat by reason of his high feeding so continually, gets forth of the water to the shore, having spied afore where the reeds and rushes have been newly cut; and where he seeth the sharpest cane and best pointed, hee sets his body hard on to it, to pricke a certaine veine in one of his legs, and thus by letting himselfe blood maketh evacuation; whereby his body, otherwise inclining to diseases and maladies, is well eased of the superfluous humor; and hauing thus done, he stoppeth the orifice againe with mud, and so stancheth the blood, and healeth the wound."

Franz Mesmer was a physician, and together with Father Hell, about 1772, he began to investigate the curative power of the magnet. As early as 1778 he attracted attention in Germany and France, and made a fortune by his "magnetic cures."

Mesmer was denounced as a quack and his theories ridiculed, but his studies had much to do with the development of what at the present day is recognized as of therapeutic value, *i. e.*, hypnotism.

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EDITORIAL

A SKIN-REACTION IN CARCINOMA.

Since the observation of Bard (1901) that in haemorrhagic carcinomatous exudates into serous cavities blood is haemolized, considerable attention has been attracted to the subject of erythrocytolysis in malignant tumors, especially since it seemed possible that the anaemia so often seen in carcinoma might be due to some haemolytic substances made in the autolysis of the malignant tumors.

The fact that the blood of a patient suffering from carcinoma possesses the power of dissolving normal human erythrocytes seemed to Dr. Charles Elsberg of the Mt. Sinai Hospital, New York, to afford a basis of a practical test for the recognition of carcinoma. Accordingly Dr. Elsberg injected washed red blood cells of a normal person un-

der the skin of a patient known to be carcinomatous with the hope that the erythrocytolytic substances known to be present in the blood-stream in this disease would dissolve the red cells introduced, creating a local haemolysis, and in consequence a reaction at the site of injection. Dr. Elsberg was justified in his hypothesis. A decided local reaction was observed.

"Six to eighteen hours after the injection, the affected area was slightly raised and tender, it had a more or less well defined margin, it measured from two to four centimeters, and it was of a somewhat dusky red color. The changes in the skin reached their maximum within one or two hours and the red area then began to fade, rapidly or slowly. Eight to twenty-four hours after the injection the skin lesion either had entirely disappeared, or more often, there was a brownish, bluish or lemon-

yellow discoloration which persisted for a number of days."

Up to the present time Dr. Elsberg has applied this subcutaneous test to twenty people known to have carcinoma. In all of these positive reactions were obtained. Of four patients with known sarcoma three gave a positive reaction. On the other hand this same test was given to one hundred supposedly normal individuals and with all of them the reaction was negative.

While more extended observation may appear desirable, and while this cutaneous lesion may not be found to be specific since erythrocytolysins are known to be formed in other conditions such as in severe tuberculosis, it seems that Dr. Elsberg's "skin reaction" may prove to be invaluable in the early recognition of malignant tumors.

L. B. S.

ERADICATING PLAGUE FROM SAN FRANCISCO.*

The Citizens' Health Committee of San Francisco, which committee has been the representative of the people of that city, in the work of eradicating the bubonic plague recently issued in book form a report of the work accomplished under the above title, which report is of great interest, and to Californians also of great value and significance.

The report is generously illustrated with photographs and contains copies of the ordinances and notices which it was necessary to inaugurate, in order to do efficient service.

*Eradicating Plague from San Francisco. Report of the Citizens' Health Committee, by Frank Morton Todd, Historian of the Committee. Press of C. A. Murdock & Co., San Francisco.

The historical presentation of the facts of the San Francisco epidemics, the first indifference and their ultimate awakening to the gravity of the public health and economic problem facing them, is vividly drawn by the author.

The discussion is, however, more than a merely popular treatise on the subject. The book contains in fact at the same time a larger amount of scientific information than any other English volume with which we are familiar. It is difficult to bespeak all its good points.

The Citizens' Committee and the United States Public Health and Marine Hospital Service are to be congratulated not only on the success which met their joint and united effort at San Francisco, but also on their wise foresight in publishing the result of their labors so that the people of our country, but especially the people of the Pacific Slope might learn their responsibilities in this grave problem. We commend to our readers a perusal of this volume, which may be found on the shelves of the Barlow Medical Library.

NEW BOARD OF MEDICAL EX- AMINERS NAMED BY GOVERNOR.

Announcement of the appointment of the following as members of the State Board of Examiners was made by Governor Gillett on May 11th. The new Board consists of Drs. D. L. Tasker of Los Angeles, W. H. Stiles of San Bernardino, William Mason of Lodi, Charles Clark of San Francisco, Charles L. Tinsdale of Alameda, J. Henry Barbat of San Francisco, W. W. Roblee of Riverside, Walter Lindley of Los An-

geles, F. R. Burnham of San Diego, G. F. Reinhardt of Berkeley, W. W. Vanderburg of San Francisco.

To these gentlemen THE PRACTITIONER bespeaks its best wishes. As regards the regular profession, three of the five representatives are from the South, Drs. Roblee, Burnham and Lindley; and two from the North, Drs. Rinehart and Barbat.

The general complexion of the Board is such that we feel that much of the criticism which has brought its actions into disrepute in the past will be avoided by the tact, courtesy and fairness of the men appointed. On the other hand, we are quite certain that it will not be found lacking in backbone on every matter of principle and honest standard.

ARIZONA'S NEW VITAL STATISTICS LAW.

In this number the PRACTITIONER begins the publication of the vital statistics law passed at the recent session

of the Arizona Legislature, and reference to which has been made in previous numbers of this journal.*

The Committee on Public Policy and Legislation of the Arizona Medical Association is justly proud of the success of its efforts in behalf of this law. The general principles of the law have been tested thoroughly in different States and have proven very satisfactory. As to whether the few changes introduced in the Arizona law will prove beneficial or detrimental in practice, time alone will tell. The various boards of public health in the Territory are entitled to the active and hearty co-operation and support of every physician in their several jurisdictions, in their efforts to enforce this law.

We hope every medical man in Arizona will study this law carefully, and do all in his power to assist in its enforcement.

J. W. F.

*Vol. XXIV, Pages 27 and 147.

EDITORIAL NOTES

The Ventura County Supervisors have elected Dr. T. E. Cunnane to succeed Dr. F. H. Huning as county physician, and L. Cagnacci to succeed Lee Wilson as superintendent of the Ventura County Hospital.

The physical examination of the 650 pupils in schools of Monrovia, was begun April 30, by Drs. A. W. Moore and H. F. True. The tests will occupy two days each week for the remainder of the school year.

Dr. Alvarado Middleditch, for more than fifty years a practicing physician, died in Pasadena, April 28th, in his home at 1231 North Los Robles avenue.

Dr. Middleditch was a graduate of the Albany, N. Y., medical college, but came to Pasadena from Waterloo, Ind., where he had spent the greater part of his life.

The following officers were elected by the Orange County Medical Society at its meeting held in Santa Ana, May 7th: President, Dr. J. L. Beebe, Anaheim; vice-president, Dr. C. C. Violett, Garden Grove; secretary, Dr. Ida B. Parker, Orange; treasurer, Dr. H. S. Gordon, Santa Ana; librarian, Dr. C. D. Ball, Santa Ana.

Dr. Earl S. Bullock, physician in charge at the New Mexico Cottage

Sanatorium, and one of the recognized authorities on tuberculosis in the United States, returned to Silver City, New Mexico, on May 4th, from Chicago, where he went to read a paper on "Laryngeal Tuberculosis" before the Cook County Medical Association.

A dispatch from Guthrie, Oklahoma, of date of April 16th states: Physicians affected by tuberculosis will not be permitted to practice in Oklahoma hereafter. The Board of Medical Examiners have found that physicians from the east have come here expecting to benefit in health and practice at the same time. The Board believes it is injurious to the patients' interests to permit such physicians to practice and incidentally it increases the number of doctors to the population.

At its recent meeting the Southern California Electric Medical Association, meeting in Long Beach, elected the following officers to serve throughout the ensuing year: Dr. Holton, Whittier, president; Dr. Conrad, Los Angeles, vice-president; Dr. Blanche Bolton, San Diego, secretary, and Dr. Monk, Los Angeles, treasurer. Dr. Harvey was the retiring president. The president and secretary will decide on the next place of meeting.

Dr. Warren M. Horton on April 29th, sent his resignation as city bacteriologist to the mayor. His note was brief and to the point. He gave no reason for his resignation except that he was acting on the old Jacksonian principle.

The "old Jacksonian" principle is "that to the victor belongs the spoils." This is probably meant to convey the idea that if the mayor wanted to appoint someone in his place the city bacteriologist did not want to be removed forcibly.

The following interesting card was recently received from J. L. Choate, now a Johns Hopkins student and formerly at the College of Medicine, U. S. C.:

Dear Doctor:—I am with four men from Johns Hopkins on leave of absence to visit the medical centers of Europe and to spend one semester in work at one of the universities. I shall be with King at Friburg and later with Sahli at Bern. I like Berlin very much especially for post graduate work. Tomorrow we go to Leipzig to visit the laboratories of Oswald, the chemist, and Spaltholtz, the anatomist. Thence to the Rhein, Cologne, Bonn, Heidelberg, Strassberg, Munich and Friburg.

The crusade against tuberculosis in California received an impetus at the recent annual meeting of the California Association for the Study and Prevention of Tuberculosis, held on April 22, at San Jose.

A number of societies recently have been organized. There are now two county societies in the state, one in Alameda and the other in San Diego. Local societies now are working in Los Angeles, Long Beach, Monrovia, Pasadena, Redlands, Sacramento, San Francisco, Santa Ana, Santa Barbara and Sierra Madre.

The newly elected officers of the state association are as follows: President, Dr. George H. Evans, San Francisco; first vice-president, Dr. Edward von Adelung, Oakland; second vice-president, Dr. Fitch Mattison, Pasadena; secretary, Dr. George H. Kress, Los Angeles; treasurer, C. H. Toll, Los Angeles.

The following officers were elected at the meeting held at San Jose, April 22nd by the Medical Society of California: President, J. H. Parkinson, Sacramento; first vice-president, William Simpson, San Jose; second vice-president, W. B. Sawyer, Riverside; secretary, Philip M. Jones, San Francisco. Ten members were nominated for the State Board of Medical Examiners, as follows: A. S. Lobingier, G. F. Reinhardt, Walter Lindley, W. W. Roblee, F. R. Burnham, W. P.

Burke, C. D. Ball, J. H. Barbat, A. L. Cothran and George H. Evans. Sacramento was chosen as the next place of meeting, and a resolution asking that physicians from other states be admitted to practice in California without examination was laid over another year pending the finding of a fair basis of furnishing credentials.

The *Los Angeles Times* of April 15, prints the following interesting item: Dr. Alice Von Rickert, recently found guilty of mailing a letter containing information about a criminal operation, was granted a new trial by Judge Wellborn, in the United States District Court yesterday. Her attorneys introduced an affidavit to the effect that the letter received from her had been unwittingly mailed by Henry Johns, a friend of the defendant.

Johns swore that he visited her office and found the letter lying on a table. He said he put it in a mail box supposing everything was all right, if Mrs. Von Rickert can prove this claim at her next trial, she has an excellent chance of being acquitted, as the offense charged consists in "depositing in a mail box" a letter containing information prohibited by the postal laws.

"What California climate has done for tuberculosis victims is shown by the fact that persons who came to Los Angeles afflicted with the disease are now taken as risks by the Equitable Life Assurance Society of the United States," said Dr. Franklin C. Wells of New York, director of the company, recently. The doctor was enthusiastic over his first visit, and paid a decided compliment to the climate. "The climate is conducive to health and longevity," said Dr. Wells, "and modern sanitation seems to be thoroughly understood." Dr. Wells believed that a cure for tuberculosis may be discovered and that the next ten years will see a remarkable decrease in death by consumption.

A meeting was held April 28th in the Agnew sanitarium of San Diego for the purpose of reorganizing the San Diego Society for the Study and Prevention of Tuberculosis. A large number of former members of the old organization and many others interested in the fight against the dread disease, were present, and the result was an exceedingly interesting meeting.

After the adoption of the constitution and by-laws the organization was completed by the election of the following officers:

President, Dr. J. A. Parks; first vice-president, Dr. F. R. Burnham; second vice-president, Rev. W. E. Crabtree; third vice-president to be elected later; secretary, Mrs. M. B. Brust; treasurer, Dr. Thos. S. Whitelock; board of directors, Dr. Francis M. Alling, Dr. H. P. Newman, Chapman, Dr. L. G. Jones, Dr. Francis H. Mead, Dr. I. D. Webster, Rev. W. B. Thorp and Claude Woolman.

Dr. D. K. Pearsons, the noted phalanthropist, who was confined to the Pasadena hospital for several months, was dismissed from the hospital April 26th and left immediately for his home in Chicago, where he will spend the summer.

Dr. Pearsons has been before the public for a great many years. His benefactions to struggling colleges is known the world over. He has given nearly \$5,000,000 to forty colleges in the United States. Dr. Pearsons gave \$50,000 to Newberry college, North Carolina several years ago, when Dr. James A. B. Scherer, the president of Throop Institute, was head of that institution.

Two months ago, while Dr. Pearsons was preparing to attend the annual meeting and banquet of the Vermont State Society, he was taken suddenly ill with heart trouble and for five or six weeks but slight hopes were held out for his recovery. Despite his advanced age, the noted patient rallied

and left the hospital feeling fine and not looking like a man who had been critically ill. Dr Pearsons celebrated his eighty-ninth birthday at the hospital April 24th.

According to statements in the lay press, the new Board of Health has just discovered that it has an elephant on its hands in the detention hospital in Chavez ravine. Under the McAleer administration a group of buildings were erected in the canyon back of Elysian Park, for which the city paid about \$60,000. The institution is large enough to care for a small army of smallpox patients. The new Board of Health is now trying to find some use for the structure. One building in the group is large enough for a smallpox hospital. The others are in danger of going to pieces for lack of use. It was proposed today to equip one or two of the buildings, at trifling cost, and establish a free maternity hospital on the grounds, for the use of hundreds of mothers who experience the ordeal of maternity each year and are without means to provide proper attention. There is another proposal that the buildings be used for a city hospital, or for a tuberculosis sanitarium for the care of indigent tuberculous patients.—*Los Angeles Express*.

Some interesting statistics have been compiled by the *Journal of the American Medical Association* relative to the mortality rate among physicians in the United States in 1908. The number of deaths was 2261. Based on an estimate of 130,000 physicians in the country, this is equivalent to an annual death rate of 17.39 per thousand. There is no material change from the annual rates of the last six years. These were: 1907, 16.1; 1906, 17.2; 1905, 16.36; 1904, 17.14; 1903, 13.73, and 1902, 14.74. The average age at death was 59 1-3 years. The deceased had practiced all the way from 1 year to 75. The average was

30½ years. Among the principal causes of death were heart disease, violence, pneumonia and cerebral hemorrhage, in the order named. It is considered remarkable that 175 physicians met with violent deaths. Included in the assigned causes of death were 335 attributed to general diseases; 269 to diseases of the nervous system; 288 to diseases of the circulatory system; 201 to diseases of the respiratory system; 79 to diseases of the digestive system, and 34 physicians committed suicide, and 12 were murdered.

According to figures compiled by Assistant Health Officer I. R. Bancroft, tuberculosis alone cost the city of Los Angeles \$3,945,942.50 during the year 1908. This interesting calculation is based on an estimate of the amount of direct tax which tuberculosis exacted from the people of the city. An interesting article upon the subject, written by Dr. Bancroft, appears in the last number of the health department monthly bulletin. "During the year 1908, 609 persons died of tuberculosis in the city," writes Dr. Bancroft. "According to the accepted figures of economic statisticians, each life is worth a certain amount, which varies according to the age of the individual. That is, average of certain ages will produce a certain amount of wealth during the remainder of life." A table compiled on this basis is given, showing that the total money value lost to the city is \$3,567,500. Another table shows the value of wages lost by the diseased. It is based upon the assumption of a loss of one year's time from work preceding death, and assumes a wage-earning capacity only between the ages of 15 and 60. The total is \$257,700. Dr. Bancroft continues: "Each person who died was sick for possibly a year before death and, assuming a cost of 50 cents for each day of sickness, we have a total amount of \$125,742.50.

Thus it is seen that the amount that the disease exacted from our city for the year 1908 was \$3,945,942.50."

In compliance with the new law making the appointment of a county health officer mandatory, the Riverside Board of Supervisors appointed Dr. G. E. Tucker of Riverside to this office. His salary was fixed at \$50 a month. The appointment was made on motion of Supervisor Holmes, seconded by Supervisor Carlton.

This action was taken following the reading of a letter from the State Board of Health, calling attention to the laws and amendment passed by the late Legislature relative to public health. These include: "First—A law providing for the proper sanitation of food, producing and distributing plans. Local health authorities have power to enforce this act, and its rigid enforcement will do much to relieve the community of dirty and impure food. The canneries especially should receive attention. Second—The law requiring every one to endeavor in good faith to kill all rats, mice, gophers and ground squirrels on their premises. While this law aims to protect crops, it is also a sanitary measure, as these animals carry disease, especially plague to man. Third—Section 4041 of the political code was amended so that the supervisors can levy a half-mill special sanitary tax on each dollar valuation outside city and incorporate towns. This provides a fund which, if needed, can be drawn to protect the health of the community. Fourth—Section 4225 of the political code was amended to make the appointment of a county health officer mandatory, the salary being left to the board of supervisors."

Noble indeed is the work in which the National Association for the Study and Prevention of Tuberculosis is engaged. After much observation and

experiment, it has reached a conclusion which is positive, and should have most beneficial effects in reversing a current of thought which is responsible for much mischief and in changing a mental habit far more deadlier than any disease. The National Association is announcing, and is asking the newspapers of the United States to announce, consumption is curable. Consumption owed its deadliness to the fact persons attacked by it succumbed almost immediately; that is to say, if they did not die in a short time, they died after a while. Some had stronger bodies than others; but when patients of weak physique made up their minds they must die, why, they died of what is called "galloping consumption." Stronger persons lingered, and it would be said of them they "put up a good fight" against the disease, a fight that sometimes lasted for years. However, as they had made up their minds they must die of consumption, and had read and thought about the various "stages" of the disease until they had mentally arranged for themselves a program of gradual extinction which, barring accidents, was followed faithfully, it was impossible to make them change their minds, and of course equally impossible to cure them.

Attacking the disease from this point of view, the anti-tuberculosis society is already working wonders—that is to say, it is persuading people to stop thinking an attack of tuberculosis is a sentence of death. It is not at all improbable that if people would studiously adopt the same mental attitude with regard to toothache which has become habitual with them when consumption is mentioned, the ravages of toothache would shortly be frightful, and the mortality from this cause very great. Fresh air, rest and wholesome food with the aid of tuberculin will cure consumption.—*Los Angeles Herald.*

CORRESPONDENCE.

TO THE EDITOR:—I wish to call attention to a use of Adrenalin Chloride which may be new to some of your readers, as I fail to find any mention of it in medical literature—I refer to its use in croup.

I have recently had occasion to treat four cases of this troublesome ailment, and in all of them have had prompt success with a 1 to 10,000 spray of this remedy.

I tried it first in two cases of spasmodic croup, in which it proved most satisfactory, but I was rather doubtful as to its efficacy in cases of diphtheritic laryngitis; the result, however, in two severe cases more than justified its use.

I realize that four cases do not furnish sufficient data from which to draw definite conclusions, but the relief was so marked that I feel justified in recommending its trial—even in diphtheretic cases; not, of course, to the exclusion of anti-toxin, but as a valuable remedy until the anti-toxin has time to act.

NIEL C. TREW, M.D.,
146 East Avenue 56.

SOUTHERN CALIFORNIA MEDICAL SOCIETY.

**Important Gathering Was Held at
the Virginia—Long Beach Society
Did Itself Proud by Entertaining
the Visitors From
Various Sections of
Southern California.**

The Southern California Public Health association and the Southern California Medical Society held the forty-first semi-annual meeting Wednesday and Thursday, May 5th and 6th at Long Beach.

The annual meeting of the Southern California Health association meet at the Virginia Wednesday, opening with a business session at 10 o'clock, followed at 10:30 o'clock by an address

on "The Disposal of Sewage in Small Communities," by Dr. W. H. Jones, city health officer of Long Beach. An address on the "Laboratory Work for the Health Officer" was given at 1:30 o'clock by Dr. Stanley P. Black, city health officer of Pasadena. A general discussion followed.

The sessions of the Public Health association terminated at two o'clock and the meeting was then resolved into the Medical Society meeting.

The trip for the doctors to the inner harbor was held Thursday afternoon. The party took the Seaside car leaving Hotel Virginia for the Craig Shipbuilding plant. The boat was boarded at the dock at the ship plant and the party of gentlemen and ladies were personally conducted through the harbor by C. J. Curtis, president of the Los Angeles Dock & Terminal company, who explained the harbor work.

The wives of the local members of the Public Health and Medical Society, co-operating with the lady physicians of the city and assisted by the ladies of the local profession in Long Beach, tendered a reception at Hotel Virginia Wednesday from three to five o'clock, to wives and lady friends of visiting physicians. An automobile ride and a trip to the inner harbor were additional convention features.

The Public Health association had as its retiring officers: President, Dr. C. D. Ball, Santa Ana; secretary, Dr. W. W. Robles, Riverside. The Medical Society had Dr. F. D. Burnham of San Diego, president, and Dr. J. M. King, of Los Angeles, secretary. The local profession represented on the program were Dr. J. M. Holden, vice-president of the Medical Society, Dr. H. O. Bates, chairman of committee on arrangements.

The program for the forty-first annual meeting of the Southern Califor-

nia Medical society and the Southern California Public Health association was as follows:

WEDNESDAY, MAY 5TH, 2:30 P. M.

10 o'clock—Business session.

10:30 o'clock—Paper on "Disposal of Sewage in Small Communities," Dr. W. H. Jones.

1:30 o'clock—Paper on "Laboratory Work For the Health Officer," by Dr. Stanley P. Black, Pasadena.

MEDICAL SOCIETY.

Call to order, reading of minutes, applications for membership, appointment of committees, announcement by committee on arrangements.

"The Duty of the Medical Profession to the Children of the Public Schools," F. L. Rogers, M.D., Long Beach. "Some Problems in the Care and Development of Children," Paul A. Adams, M.D., Los Angeles. "Chorea," Francis M. Allen, M.D., San Diego. "Pneumonia," Thos. L. Magee, M.D., San Diego. "The Relation of the State Board of Health to the Public," Wm. Le Moyne Wills, M. D., Los Angeles.

WEDNESDAY, MAY 5TH, 7:30 P. M.

Symposium on Psycho and Religio-Therapy, in charge of Ross Moore, M. D., Los Angeles. (a) "From the Standpoint of Religion," Rev. Dana Bartlett, Los Angeles. (b) "From the Standpoint of the General Practitioner," Ernest B. Hoag, M.D., Pasadena. (c) "From the Standpoint of Crime and its Correction," Judge Curtis D. Wilbur, Los Angeles. (d) "The Basis and Mechanism of Psycho-Therapy," Ross More, M.D., Los Angeles.

THURSDAY, MAY 6TH, 9:30 A. M.

"Cerebral Hemorrhage," F. W. Thomas, M.D., Claremont. "Arterial Hypertension," R. E. Austin, M.D., San Diego. Report of one hundred case of inguinal hernia operated with removable sutures, O. O. Witherbee, M.D., Los Angeles. "Obstruction of the Bowels," T. A. Stoddard, M.D., Santa Barbara. "Intestinal Obstruction from Bands and

Adhesions—Some Cases." C. Van Zwahlenburg, M.D., Riverside.

THURSDAY, MAY 6TH, 2:00 P. M.

"A Case of Abscess of the Liver of Unusual Origin," W. B. Power, M.D., Redlands. "Symposium on Gastric and Duodenal Ulcer," arranged by Chas. D. Lockwood, M.D., Pasadena. "Pathology," Edith J. Claypole, M.D., Pasadena. "Diagnosis," Donald J. Frick, M. D., Los Angeles. "Medical Treatment," E. W. Hanlon, M.D., Los Angeles. "Surgical Treatment," Chas. D. Lockwood, M.D., Pasadena.

The convention closed Thursday evening with a banquet at Frank's cafe. Covers were laid for one hundred and the banquet tables were dainty with smilax, carnations and sweet peas. Dr. F. B. Burnham of San Diego, present, was toastmaster of the evening.

At the close of the menu the following toasts were responded to:

"More than Welcome," Mayor Windham; "The Society," Dr. F. C. E. Mattison; "The Physician," Dr. O. O. Witherbee; "The Middle States Physician," Dr. W. T. Burke; "As a Citizen," Dr. William LeMoyne Mills; "The Ladies," Dr. W. T. McArthur.

BARLOW MEDICAL LIBRARY.

An Appeal for California Publications.

The Barlow Medical Library should have a complete file of all the California Medical Journals. Any doctor who has old numbers of any of the following journals will confer a great favor by contributing them to assist in making the collection complete.

California Homoeopath.

California Medical Bulletin.

California Medical Journal.

California Medical Times.

California State Medical Journal (1856-1857).

Pacific Coast Dentist.

Pacific Stomatological Gazette.

Pacific Medico-Dental Gazette.

Pacific Dental Gazette.

Pacific Dental Journal.
 Pacific Health Journal.
 Pacific Record of Medicine and Surgery.
 Pacific Record of Medicine and Pharmacy.
 Occidental Medical Times, Vols. 13 and 18.
 Pacific Medical and Surgical Journal, Vols. 1, 8-17, 19, 23, 27.
 Pacific Medical Journal, Vol. 47, Nos. 3, 4, 5, 6, 7, 9, 10. Vol. 48, Nos. 1, 2. Vol. 49, No. 7. Vol. 51, No. 10.
 Pacific Coast Journal of Homoeopathy, Vols. 1-12. Vol. 13, Nos. 1, 2, 3, 11. Vol. 14, Nos. 4, 5, 6, 7. Vol. 17, Nos. 7, 10. Vol. 18, No. 5. Vol. 19, No. 7.

San Francisco Medical Press.
 San Francisco Western Lancet.
 Western Lancet (San Francisco).
 We also need to complete our files:
 Medical News, Vol. 83, No. 21. Vol. 87, No. 11.
 Medical and Surgical Reporter, Vol. 66. Vol. 58, No. 5. Vol. 59, No. 7.
 Medicine, Vol. 11, No. 8.
 The Barlow Medical Library is open to all members of the profession from 9 a.m. to 5 p.m., daily, except Sundays and holidays. The librarian, Miss Weir, will be glad to look up bibliographies, if previously telephoned to. Phone, Home A9721. Yellow Garvanza and Griffin Avenue cars stop at the door, 740 Buena Vista Street.

CALIFORNIA STATE BOARD OF MEDICAL EXAMINERS' EXAMINATION AT SAN FRANCISCO, APRIL 6TH, 7TH AND 8TH, 1909.

GYNECOLOGY.

1. Give location, shape, position and size of a normal uterus.
2. Name and give the attachments of the ligaments that hold the uterus in position.
3. Give the course of the ureters through the true pelvis, particularly their relation to the uterus.
4. Differentiate between Anteversion and Antelexion of the uterus.
5. Describe briefly the following conditions: (a) Vicarious menstruation and places it may appear. (b) Supplementary menstruation. (c) Suppressed menstruation. (d) Emansio mensium (a form of Amenorrhoea) with two causes.
6. Give tissues lacerated in incomplete laceration of the perineum. Same in complete laceration.
7. Give differential diagnosis between prolapsus of the urethra and urethrocele.
8. Differentiate between pelvic haematocoele and haematometra.
9. Name the various kinds of cysts found in the pelvis, both from their origin and character of their contents.
10. Name the five different places at which a pelvic abscess may "point."
5. Name six (6) efficient disinfectants and indicate their application to different purposes.
6. What evidence is there that tuberculosis is a septicemia.
7. Enumerate an efficient and complete plan for the control of tuberculosis.
8. Why is an early diagnosis of syphilis important and what are the methods by which a positive diagnosis can be made?
9. What are the causes of the ordinary "colds" and what can be done to prevent them?
10. What progress has been made with the serum treatment of disease?

CHEMISTRY AND TOXICOLOGY.

1. Define certified milk; inspected milk; Pasteurized milk.
2. How is a sand filter for water constructed and what attention must be given to such a filter?
3. Describe the three large groups into which the different forms of food poison may be divided.
4. Discuss the economic loss to the public through insects that carry disease.
1. (a) What is the definite ratio of increase or difference in the methane or marsh gas series? (b) What is an alcohol? (c) How are organic acids produced?
2. Select the five most important reagents for an urine analysis outfit and state why you selected each.
3. (a) What body waste does excess of urea signify? (b) What is the normal amount excreted in 24 hours? (c) What will increase its quantity? (d) What should be taken into account in establishing its amount in relation to the individual?
4. (a) Describe Ehrlich's Diazo-reaction. (b) Of what diagnostic importance is it?
5. (a) What acids produced from carbohydrates by bacterial action in the intestine? (b) Do these acids stop the action of the pancreatic juice? (c) What putrefactive products in the intestine from bacterial action?
6. (a) In what form may indol be found in urine? (b) Outline analysis. (c) What is its clinical significance?

7. Give action, where formed, products and classes of foods digested by: (a) Trypsin. (b) Amylopsin. (c) Steapsin.
 8. (a) Why would you not give the alkaline carbonate as antidote in oxalic acid poisoning? (b) Describe symptoms and outline treatment for a case of carbolic acid poisoning.
 9. (a) Give the symptoms of poisoning from mushrooms. (b) What difference would you note in the stains on the skin between nitric acid and sulphuric acid poisoning?
 10. Symptoms: Dryness of the throat, metallic taste, great thirst, colic (relieved by pressure), abdominal muscles rigid, constipation, cramps in legs, paralysis of the extremities, convulsions, blue line at margin of gums. Name the poison.
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1. Give topography of the bronchi on the ventral and dorsal surfaces of the body. (Diagram.)
 2. Give course of the adult duodenum and position of the pancreas with reference to the ventral aspect of the vertebral column. (Diagram.)
 3. What articulations have an interarticular fibro-cartilage?
 4. What is the arrangement of the lumbar fascia?
 5. Give brief outline of the arrangement and plan of distribution of the sympathetic nervous system.
 6. Name the various bony prominences or landmarks which can be easily felt and recognized in the head and face, which afford the means of mapping out the important structures comprised in this region.
 7. What are the veins of the neck which return the blood from the head and face?
 8. What nerves enervate the tongue?
 9. Give location of the thoracic duct and indicate what portions of the body are drained by it.
 10. What arteries supply the rectum and of what arteries are they branches?

GENERAL DIAGNOSIS.

1. Describe the anaemias.
2. Describe duodenal ulcer.
3. Describe acute poliomyelitis anterior.
4. Differentiate conjunctivitis and iritis.
5. Describe abdominal pains in the male and give significance of each.
6. Differentiate renal and hepatic colic.
7. Differentiate aortic and mitral valvular diseases.
8. Describe Raynaud's disease.
9. What are the causes of endocarditis?
10. Give early symptoms of gastric ulcer.

OBSTETRICS.

1. Describe a four months' foetus sufficiently exact to be of value as evidence in a medico-legal investigation.
2. State fully the reasons or conditions that make a fourteen to eighteen week abortion so very dangerous and describe the management of such a case.
3. What clinical symptoms occurring during labor would cause you to fear post-partum hemorrhage, and state in full what measures you would use to prevent its occurrence.
4. In a case of delayed second stage of labor, how long a time would you allow to elapse before interfering; and if interference were necessary what would you

consider the indications for each different measure or method of terminating labor?

5. During pregnancy what clinical symptoms would be most likely to cause the patient to consult you for threatening toxæmia of pregnancy? How would you verify the diagnosis and how would you manage such a case?
6. What do you consider the probability of frights, accidents, etc., in a pregnant woman as a cause of birthmarks, monsters, etc.? What do you consider the most common cause of these abnormal cases and at what stage of foetal life are these abnormal conditions most likely to begin to develop, and what is the best means to prevent their occurrence?
7. In cases of breech or foot presentations, state fully why the dangers are greater to the mother and to the child, and how would you conduct such cases in order to minimize the dangers to both as much as possible?
8. Describe the symptoms occurring during the first stage of labor that would cause you to fear impending laceration of the cervix and what means would you use to prevent it?
9. Describe some of the conditions in a puerperal case that would lead you to use extraordinary precautions to prevent infection. In such a case state what directions or orders you would give to ignorant, unskilled help, and what you would do yourself to prevent its occurrence and, should it appear how would you manage the case under these conditions?
10. If you were to conduct an ordinary case of labor in the country among poor people, state fully what directions you would give to an ignorant, unskilled woman, acting as nurse, for the care of your patient for the first forty-eight hours after labor.

BACTERIOLOGY.

1. (a) Differentiate endogenous and exogenous infections. (b) Name one organism associated with each condition.
2. (a) Name the organism of chancre. (b) Give morphology and staining peculiarities. (c) Name the organism of chancroid.
3. (a) Name two methods of animal inoculation. (b) State the precautions necessary to satisfactory results.
4. (a) State how to prepare potato for cultural purposes. (b) Name two organisms to whose growth it is suitable.
5. (a) Name 3 pyogenic organisms. (b) 3 toxine producers. (c) 5 pathogenic organisms positive to Gram's method.
6. Name the most frequent causal organism in: (a) Appendicitis. (b) Acute cystitis.
7. (a) Name three anaerobic bacteria. (b) Describe a method of cultivating anaerobins.
8. Define: (a) Leucomain. (b) Pleomorphous. (c) Agglutin. (d) Alexin. (e) Phlogistic.
9. Examination of two slides.
10. Examination of two slides.

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1. Define and give illustrations of: (a) Autolysis. (b) Plasmolysis.
 2. Give the probable location of the chief motor areas of the cerebral cortex.

3. Describe the distribution and function of the spinal-accessory nerve.
4. (a) Where are the trophic centers of the skeletal muscles? (b) Where is the parturition center?
5. Describe the blindness ensuing from a destructive lesion of the right optic tract.
6. Describe the innervation of the respiratory movements.
7. Explain the movements of the large intestine.
8. (a) What is the function of the portal system of veins? (b) Mention the principal branches. (c) How do they differ from other veins?
9. Why are the arteries in a state of emptiness after death?
10. Define: (a) Atelectasis. (b) Alexins. (c) Protozoa. (d) Ptyalin. (e) Caul. (f) Chemotropism. (g) Colostrum. (h) Catamenia. (i) Eupnea. (j) Strabismus.

PATHOLOGY.

1. Discuss the etiology of thrombosis.
2. What is the microscopic appearance of the liver in hypertrophic cirrhosis?
3. In normal feces, what is the percentage of bacteria (dry, by weight)? How does it vary in constipation, diarrhoea?
4. Name the diseases, the diagnosis of which may be made entirely by blood smears, blood culture, blood count, and serum reaction.

5. What is the microscopic character of the blood in Banti's disease? What are the gross post-mortem findings?
6. Describe the mechanism of jaundice due to obstruction of the extra-hepatic bile ducts.
7. Secondary to tonsillar infections, what diseases or pathologic lesions may result?
8. In what different ways may arteriosclerosis cause death?
- 9 and 10. The diagnosis of pathologic specimens under the microscope.

HISTOLOGY.

1. Explain the difference in the histological structure of veins and arteries.
2. Describe the histological structure of the tonsils.
3. Give the histological structure of red and yellow bone marrow.
4. Describe the development of bone.
5. Draw a diagram of a cross section of an ovary showing one ripe Graafian follicle.
6. Describe the histological structure of the skin.
7. Describe the histological structure of the pancreas.
8. Identify two specimens.
9. Identify two specimens.
10. Identify two specimens.

BOOK REVIEWS

DISEASES OF THE GENITO-URINARY ORGANS AND THE KIDNEY. Second Revised Edition. By Robert H. Greene, M.D., Professor of Genito-Urinary Surgery at the Cornell University, New York; and Harlow Brooks, M.D., Assistant Professor of Clinical Medicine, University and Bellevue Hospital Medical School. October, 1915. 615 pages, profusely illustrated. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$5.00 net; Half Morocco, \$6.50 net. W. B. Saunders Company, Philadelphia and London.

It has been the purpose of the writers to present in this volume a discussion of the more important disease conditions of the uro-genital tract, taken from the standpoint of the general practitioner and surgeon. In so far as possible they have attempted to incorporate such methods as they personally have found most practical and useful, all of which they believe may be successfully employed in the hands of any well-equipped practitioner, familiar with modern medical and surgical technic.

The writers do not profess that the book is complete; this would be impossible in a work of this size. They have attempted to devote the greatest

amount of space and the fullest descriptions to those conditions and methods which have appeared to them to be of the greatest importance, or to those which, being of recent development, may be presumed to be less familiar to the practitioner.

A larger amount of space has been devoted to the urinary organs proper, and relatively less has been said of purely sexual disorders.

The work is the conjoint product of a surgeon and a physician, and it is intended that equal attention should be devoted to both medical and surgical aspects of these diseases.

In this second edition of our book we have introduced considerable new material, discussing subjects not considered in our first edition, and elaborating more fully certain portions of our original text. Several new operative procedures are presented and new methods which have appeared in the recent literature and seem of definite

value have been incorporated. Many minor corrections and alterations have also been made, and the book has been thereby improved.

On page 68 under Methods of Separating the Urine from Each Kidney without Catheterizing the Ureters, occurs the following: "A year or two ago the consideration of the different methods of urine separation by the aid of various separators would have consumed more space than is at present demanded. So long as the difficulties of catheterization of the ureters seemed almost insurmountable, any new methods of separating the urine were received with decided enthusiasm; since, however, it has been learned that, once one is familiar with the process of catheterizing the ureters, the simple operation may be repeated as often as occasion demands, the various urinary segregators and separators have somewhat fallen into disuse and come to be considered unimportant. As time goes on it may be demonstrated that we are in error in making this observation. The fact remains, nevertheless, that at present an ideal segregator or separator does not exist; and although some of these instruments that are now in use are of value, and attest to the very commendable mechanical ingenuity of their inventors, still, the writers' experience and that of other investigators places them in favor of catheterization. It is the writer's belief that, in order to properly understand the use of segregators and separators, as much perseverance and skill are necessary as are required for catheterizing the ureters; and, from clinical experience, it would seem to be about as easy to obtain consent for performing catheterization as for using the segregators. In exceptional cases, where the process of catheterizing the ureters has been so painful to the patient that he objects to further attempts at it, the segregators may be used. It is by no means intended to convey the idea that these segre-

gators are valueless, for this is not the case. The Harris segregator is an instrument for which the profession should feel grateful. By its use, years ago, when it was first placed upon the market, the writers found unilateral albuminuria in cases of chronic nephritis, also casts in the secretion of only one kidney. At that time its use demonstrated how little was then known as to the nature of Bright's disease."

Considering Prostatic Diseases on page 529 occurs the following: "From personal and contributed experience the writers are inclined to recommend the perineal route, performed in the manner described under the name of the Bryson operation. Where, however, the enlargement is almost entirely of the third lobe; where there is but slight congestion due to varicose veins at the base of the bladder, and where the proper after-treatment of the suprapubic wound can be secured, the removal of this third lobe of the prostate by the suprapubic route may at times be advisable."

In reviewing the book somewhat carefully it would seem that it is a most commendable work.

Dr. Green's position in the New York City and French hospitals have given him abundant opportunity for extensive observation, while Dr. Brooks' work in the University and Bellevue Hospital Medical College as associate professor of clinical medicine, together with his position on the staff of the New York City hospital also yields him a wide experience from which to draw.

The book is very appropriately dedicated to L. Bolton Bangs as a tribute of respect.

INTERNATIONAL CLINICS a quarterly of illustrated clinical lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Paediatrics, Obstetrics, Gynaecology, Orthopaedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners by leading members of the medical profession throughout the world, edited by W. T. Longcope, M.D., Philadelphia, U.S.A.,

with the collaboration of Wm. Osler, M.D., Oxford; John H. Musser, M.D., Philadelphia; A. McPhedran, M. D., Toronto; Frank Billings, M.D., Chicago; Chas. H. Mayo, M.D., Rochester; Thos. H. Rotch, M.D., Boston; John G. Clark, M.D., Philadelphia; James J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M. D., London; Richard Kretz, M.D., Vienna; with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Volume IV, Eighteenth Series, 1908. Philadelphia, and London, J. B. Lippincott Co., 1908.

Volume IV of the 18th series contains an interesting article by J. A. Lichty, on "The Treatment of Gastric Ulcer based upon results of 140 Cases." The conclusions of this article are as follows: "That 149 recorded cases occurred among 1395 gastric cases in over 8000 patients."

2. The mortality need not be high. The most frequent cause of death is cancer, the next frequent is perforation. Death from hemorrhage in an uncomplicated ulcer did not occur in this series.

3. The medical treatment of gastric ulcer gives results which show that it has a definite place in the general treatment of gastric ulcer.

4. Surgical treatment must be instituted in some cases. But the present methods and results are not all that is to be desired.

This volume also contains an interesting chapter by Chauncey D. Palmer, of Cincinnati, on "Psychotherapeutics."

Like most articles in medical works on this subject at the present time he has something to say on Eddyism. However, his comments in this line lack much of the caustic criticism given by many, and is full of good common sense. He says: "The term Christian Science is a pronounced misnomer because it is wholly unscientific and because also it is too mercenary in its methods to be christian. . . . It is the product of a disordered brain. It is having its best day now, for before long it will probably follow the way of all the delusions of its kind and be forgotten, except possibly by a few neurotics and religious enthusiasts. This

consideration falls legitimately within the scope of medical inquiry."

In reviewing this volume we notice that while there is somewhat of a lack of articles by the old war horses of the profession, the younger men in medicine are contributing largely. It is quite possible that this is no disadvantage as much of the best work of our profession at the present time is being done by younger men.

The general makeup of the book so far as typography and arrangement is concerned, is the same as the previous volumes.

PRACTICAL DIETETICS WITH REFERENCE TO DIET IN DISEASE. By Alida Frances Pattee, Graduate Boston Normal School of Household Arts, Late Instructor in Dietetics, Bellevue Training School for Nurses, Bellevue Hospital, New York City, Special Lecturer at Bellevue Mount Sinai, Hahnemann and the Flower Hospital Training Schools for Nurses, New York City, St. Vincent de Paul Hospital, Brockville, Ontario, Canada. Fifth Edition. 12mo cloth, 300 pages. Price, \$1.00 net. By mail, \$1.10. C. O. D., \$1.25. A. F. Pattee, Publisher, 52 West 39th St., New York.

This is a work on the preparations of proper food for the sick and convalescent, giving in detail the method of preparing and administering liquid, semi-liquid and solid food. Contains the diet lists and what to avoid in various diseases; also the proper diet for infants and children as advised by leading physicians and hospitals of New York and Boston.

THERAPEUTICS OF RADIANT LIGHT AND HEAT AND CONVECTIVE HEAT. By Wm. Benham Snow, M.D., Author of "A Manual of Electro-Static Modes of Application, Therapeutics, Radiography, and Radiotherapy," "Currents of High Potential of High and Other Frequencies," Editor of the Journal of Advanced Therapeutics, and late Instructor in Electro-Therapeutics in the New York Post-Graduate Medical School. Cloth, 120 pages. Scientific Authors' Publishing Co., 349 West 57th St., New York. Price \$2.00 net.

This book on a subject of great modern day interest, illustrated and containing eight full page plates illustrating the methods of treatment has been prepared to meet the demand for a condensed and practical manual on Radiant Light and Heat Therapy.

Chapters have been added showing the contrast between Radiant Light and Heat, and Convective Heat. A chapter is also included showing the comparative actions of Radiant Light and Heat and the Roentgen Ray.

The work has been prepared with great care as to accuracy and detail, and includes the physical and physiological actions and therapeutics of the subjects treated.

SAUNDERS' POCKET MEDICAL FORMULARY. By William M. Powell, M.D., Author of "Essentials of Diseases of Children." Containing 1831 formulas from the best known authorities, with an appendix containing Posologic Tables, Formulas and Doses for Hypodermic Medication, Poisons and their Antidotes, Diameters of the Female Pelvis and Fetal Head, Obstetric Table, Diet-lists, Materials and Drugs used in Antiseptic Surgery, Treatment of Asphyxia from Drowning, Surgical Remembrancer, Tables of Incompatibles, Eruptive Fevers, etc. Ninth Edition, adapted to the 1905 Pharmacopoeia. Philadelphia and London: W. B. Saunders Company, 1909. In flexible morocco, with side index, wallet and flap, \$1.75 net.

This is the ninth edition, a tribute to the completeness, accuracy and up-to-dateness of this popular formulary.

EPOCH-MAKING CONTRIBUTIONS TO MEDICINE, SURGERY, AND THE ALLIED SCIENCES. Being reprints of those communications which first conveyed Epoch-Making Observations to the Scientific World, together with Biographical Sketches of the Observers. Collected by C. M. B. Camac, M.D., of New York City. Octavo of 425 pages, with portraits. W. B. Saunders Company, 1909. Philadelphia, London. Artistically bound, \$4.00 net.

With all the pride physicians usually take in their profession, it may be truthfully said that as a class they are woefully deficient in a first-hand knowledge and study of the great advances made in medicine and surgery. This volume by Camac is intended to help overcome this lack of knowledge. His presentation of the original monographs and comments on antisepsis, the circulation of the blood, percussion of the chest, consultation and the stethoscope, vaccination against small-pox, anaesthesia and puerperal fever are all most excellent.

TEXT-BOOK OF EMBRYOLOGY. By Frederick Randolph Bailey, A.M., M.D., Adjunct Professor of Histology and Embryology, College of Physicians and Surgeons (Medical Department of Columbia University), and Adam Marion Miller, C.M., Instructor in Histology and Embryology, College of Physicians and Surgeons (Medical Department of Columbia University). With 515 illustrations. New York: William Wood & Company, 1909, \$4.50 net.

Bailey and Miller have presented here an excellent review of the latest knowledge on embryology, dividing the book into a consideration of General Development and Organogenesis, with an appendix on general technic. The discussion of the individual chapters is lucid, the illustrations are excellent and the book will without doubt be heartily welcomed by American medical students.

A TEXT-BOOK OF MEDICAL CHEMISTRY AND TOXICOLOGY. By James W. Holland, M.D., Professor of Medical Chemistry and Toxicology, Jefferson Medical College, Philadelphia. Second Revised Edition. Octavo of 655 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$3.00 net.

The study of chemistry is a bugbear to many medical students. Holland has presented a text-book thoroughly up-to-date, logical in arrangement, clear in diction, valuable in its emphasis of the important facts and elimination of the unessential, and withal most excellent in giving the student an opportunity to carry away clear-cut ideas of a most important subject. The book should be valuable also to practitioners who wish to keep abreast of the newer researches, the chapters on the examination of urine and other practical topics being excellent.

PRIMARY STUDIES FOR NURSES: A TEXT-BOOK FOR FIRST YEAR PUPIL NURSES. By Charlotte A. Aikens, formerly Superintendent of Columbia Hospital, Pittsburg, and of the Iowa Methodist Hospital, Des Moines. 12mo, of 425 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$1.75 net.

A compact and well arranged volume, outlining the essentials of anatomy and physiology, hygiene, bacteriology, therapeutics and materia medica, dietetics, invalid cookery as needed by nurses.

CONSTIPATION AND INTESTINAL OBSTRUCTION. By Samuel G. Gant, M.D., LL.D., Professor of Diseases of the Rectum and Anus in the New York Post-Graduate Medical School and Hospital. Octavo of 559 pages, with 250 original illustrations. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$6.00 net; half bound, \$7.00 net.

A few years ago a volume of 559 pages on constipation in its different degrees and types would not have been seriously thought of. It is a tribute to the increased attention paid to elimination that such a volume is possible and a tribute also to physiological therapeutics, that the author discusses the topic from more than the drug treatment standpoint. Gant has written a book that will be appreciated the more it is studied. Its price is modest compared to the relief received by some poor sufferer through its teachings.

SELF-HELP FOR NERVOUS WOMEN: FAMILIAR TALKS ON ECONOMY IN NERVOUS EXPENDITURE. By John K. Mitchell, M.D., Fellow of the College of Physicians of Philadelphia, Attending Physician to the Philadelphia Orthopaedic Hospital and Infirmary for Nervous Diseases. Philadelphia, J. B. Lippincott Company.

Functional nervous diseases are the bane of American civilization. Their widespread existence accounts in part for the phenomenal growth of therapeutic fads and isms. Mitchell has told in simple language the nature of nervousness and the logical hygiene for its prevention and cure. The volume is a sane and optimistic presentation of the subject and can be safely placed in the hands of the persons for whom it was written.

*DILUENT GRUELS AND ALKALI.

The general teaching today is that cereal gruel is the best diluent where cow's milk is used in infant feeding. Dr. Dwight Chapin of the New York Post-Graduate School sets forth the reason very plainly in the last edition of his excellent work.

"In practical infant feeding no attention need be given to the particular

products of the starch transformation, as they are the same as those that are produced in the livers of all animals which produce glycogen. The youngest infant has such products in its circulation and readily assimilates digested gruels.

"When the starch of the gruel has been dissolved, there remain the coagulated proteids of the cereal and the delicate cell walls, cellulose which are in a loose, flocculent condition and which render the curds of cow's milk more porous. Dextrinized gruels containing as high as 3 per cent proteids, and 12 per cent soluble carbohydrates, may be made, and form an excellent diluent for milk for older children and adults in fever diets. The gruels not only render milk more digestible, but also have a favorable action on digestive secretion.

"From time immemorial cereal gruels have been used as a bland diet in fevers and in gastro-intestinal affections, when milk and other more solid food was contraindicated. In more recent times, since the problem of artificial infant feeding has forced itself to the front, gruels have been used to dilute cow's milk for infants because of their effect of softening the milk curds in the stomach and rendering the milk more digestible.

"The use of gruels for this purpose has been decried by some on theoretical grounds, it being claimed that it was unnatural, as human milk did not contain cereals. But it was just as apparent that human breasts did not secrete cow's milk; and that as some substitute for breast milk had to be

*The theory and practice of Infant Feeding with notes on Development by Henry Dwight Chapin, A.M., M.D., professor of Diseases of Children at the New York Post-Graduate Medical School and Hospital; attending Physician to the Post-Graduate, Willard Parker and Riverside Hospitals; consulting Physician to the Randall's Island Hospital and to St. Agnes Hospital, White Plains. Third Edition, revised with numerous illustrations, price \$2.25. New York, William Wood and Company. MDCCCIX.

chosen, it was justifiable to use what gave good results. No one who has had experience with the use of cereal gruels in infant feeding will deny that marked improvement often follows their use, and that they are the main reliance when milk must be temporarily discontinued. In spite of their well-known clinical value there has been a general impression that their use as a routine measure was unscientific.

"It has been taught that the proper way to modify cow's milk for infants was, in addition to diluting it and adding cream and sugar to add a certain amount of alkali ostensibly to overcome the acidity of the cow's milk. In practice, however, enough alkali was often added to change the casein of the milk into a compound that would not form curds in the stomach, and very often more than enough to neutralize the action of the infant's gastric secretions. The addition of alkali to milk really retards the process of gastric development, and often perverts it by throwing the entire work of digestion on the intestines. The effect of gruel diluents, on the contrary, is mechanically to soften the curds and thus allow the digestive tract to perform its function naturally.

"While it is well established that good clinical results often follow the addition of alkalies or antacids to cow's milk, it is going too far to lay it down as a general rule that the food of all infants should contain some alkali. When it is desired to prevent or retard the action of the gastric secretion on the milk, then an alkali is indicated; but for the majority of infants it is desirable and proper to let the stomach perform its function and increase in digestive capacity.

"As the proteid of cow's milk is with difficulty digested by the infant, it must be reduced in quantity or modified in some way. When cow's milk is diluted with water sufficiently to reduce the

amount of the proteid to suit the infant's digestive capacity, the quantity of proteid in the infant's food is often less than is needed to insure proper growth. It may be necessary then in modifying milk either to underfeed in tissue-building food (proteid), or to interfere with gastric digestion by adding alkali, or mechanically modify the curds by the use of cereal diluents. There can be no question as to which method is preferable; and therefore the writer has sought to establish cereal feeding on a scientific basis.

"The high proteid gruels are of great value in many diverse conditions. The author has employed them in persistent vomiting in patients of all ages; in the enfeebled digestive states accompanying typhoid and other fevers, and in general exhaustive conditions where the digestive and assimilative functions are at their lowest ebb.

"There is a widespread erroneous belief that vegetable proteids are not good tissue builders and are not readily digested. A moments thought will show that they must be nutritious, for the greater part of the animal tissues of the entire earth are built up from vegetable proteids. All of the lean meat of beef, mutton, and pork is derived from vegetable proteids. The proteid of bread is vegetable, and it is almost entirely digested. Recent studies on the digestibility of bread, conducted under the supervision of Atwater, in which correction for metabolic products in the faeces was made, show that as high as ninety-eight per cent. of the proteid of white bread is digested by men.

"Rockwood has shown that the proteid of oatmeal is as thoroughly digested as meat, if it has been separated from the fibre. The reason cereal proteids are apparently indigestible is that they are enclosed in cellulose which prevents the action of the digestive fluids; or the food is so coarse that it is hurried through the digestive tract and thus

escapes the action of the digestive juices. Digestive experiments 'in vitro' show the proteid of cereals to be easily digested if sufficient time is allowed. Cereals in the form of well-cooked gruels have the cellulose ruptured, and so expose the proteids that they may be easily acted upon by the digestive enzymes. Edsall and Miller have recently done some exhaustive work on

the digestibility and metabolism of vegetable proteid in infants, and found that very often this form of proteid was utilized to better advantage than the proteid of milk.

"In modifying cow's milk with cereal gruels sugar is not added to sweeten the food, but to supply energy and heat producing food."

THERAPEUTICAL HINTS

NINTH DECENNIAL CONVENTION FOR THE REVISION OF THE PHARMACOPOEIA OF THE UNITED STATES OF AMERICA.

UNITED STATES PHARMACOPOEIAL CONVENTION.

(INCORPORATED 1900.)

OFFICIAL ANNOUNCEMENT OF THE FIRST DECENNIAL MEETING.

PHILADELPHIA, PA., May 1, 1909.

In accordance with the provisions of Article VIII, Chapter I, of the By-Laws of the U. S. Pharmacopœial Convention, the President of the Convention hereby invites the several bodies, entitled under the Constitution to representation therein, to appoint delegates to the First Decennial Meeting of the said Convention to be held in the city of Washington, May 10, 1910.

The attention of all concerned is invited to the following extract from the Constitution:

ARTICLE II.

Membership.

SECTION 1. The members of the United States Pharmacopœial Convention, in addition to the Incorporators and their associates, shall be delegates elected by the following organizations in the manner they shall respectively provide: Incorporated Medical Colleges, and Medical Schools connected with Incorporated Colleges and Universities; Incorporated Colleges of

Pharmacy, and Pharmaceutical Schools connected with Incorporated Universities; Incorporated State Medical Associations; Incorporated State Pharmaceutical Associations; the American Medical Association, the American Pharmaceutical Association, and the American Chemical Society; provided that no such organization shall be entitled to representation unless it shall have been incorporated within and shall have been in continuous operation in the United States for at least five years before the time fixed for the decennial meeting of this corporation.

SEC. 2. Delegates appointed by the Surgeon-General of the United States Army, the Surgeon-General of the United States Navy, and the Surgeon-General of the United States Marine Hospital Service, and by the organizations not hereinbefore named which were admitted to representation in the Convention of 1900, shall also be members of the corporation. Each body and each branch of the United States Government above mentioned shall be entitled to send *three delegates* to the meetings of this corporation. But no such delegates as are provided for in this article shall be members until their credentials shall have been examined and acted upon as provided for by the By-Laws. Delegates admitted as members at any decennial meeting shall continue to be members of the United

States Pharmacopœial Convention until their successors shall have been appointed and admitted as delegates to the ensuing Convention and no longer.

Notification of the appointment of delegates, accompanied by the necessary certification of eligibility as required by Article II, Section I, of the Constitution above quoted, should be forwarded as soon as practicable to the Secretary of the Board of Trustees.

HORATIO C. WOOD, M.D.,
President.

MURRAY GALT MOTTER, M.D.,
Secretary of the Board of Trustees,
1841 Summit Place, Washington,
D. C.

WHILST THE FORMULA OF TYREE'S ANTISEPTIC POWDER is known to every practitioner, we deem this an opportune moment to submit, as additional evidence of its incomparable value, the views of those whose judgment of therapeutic agents of this class is universally accepted as authoritative in the highest degree. The confirmatory findings of such eminent authorities as Professor Kalusowski, of the George Washington University, Washington, D. C., and Professor William M. Gray, of the Army Medical Museum, Washington, D. C., and the opinions, based upon repeated clinical tests, expressed by exacting and conservative practitioners, are, we believe, sufficient to establish the contention that Tyree's Antiseptic Powder is superior to any other product of a kindred nature, and that it affords results which cannot be obtained by the employment of its components when they are extemporaneously combined. A trial package will be mailed free of charge to physicians if they will send their name and address to Mr. J. S. Tyree, Chemist, Washington, D. C.

WHEN MOMENTS ARE GOLDEN.—There are times in the experience of every practitioner when moments are precious

—emergencies when there is not an instant to lose. A patient, let us say, is writhing in pain. To alleviate his suffering, the physician must act promptly and with precision. Dependence, in such a crisis, is usually upon a single little hypodermatic tablet. And that tablet—will it justify the faith? Is it *medicinally active*? Is it *of full strength*? Is it *soluble*? These become living questions.

Obviously, the physician should exercise care in choosing his hypodermatic tablets. Let his source of supplies be a house with a reputation for making tablets that are stable, active and of uniform strength; tablets that *dissolve promptly and completely*. Let him search out a brand of hypodermatic tablets that meet all of the requirements above set forth, and let him *specify that brand!*

Among the largest manufacturers of hypodermatic tablets in the world are Parke, Davis & Co. The hypodermatic tablets of this house are true to label. They are soluble. The materials entering into them are rigidly tested for purity and activity.

ECHTHOL.—In Echthol we have a preparation of vegetable origin, which possesses strong antipurulent properties, properties which may be described as specific. Echthol is nontoxic, so that it may safely be employed by the unskilled, who are thus armed against septic complications. It contains the active principles of two remarkable plants, viz.: Echinacea angustifolia and thuja occidentalis, two American shrubs that have long rejoiced in an extensive reputation as a dressing for wounds. The action of Echthol is not limited to wounds and suppurating lesions of the integument. Its antipurulent action is equally manifest when given internally in the acute specific fevers, in erysipelas, and generally in all cachetic states with a tendency to pus formation. It constitutes an excellent dressing for

fresh wounds, which are thus protected against septic invasion, but its inhibitory and destructive action on pyogenic organisms renders it invaluable as a local application to boils and carbuncles insect stings and bites, ulcers, and for the irrigation of abscess cavities.—*American Medicine*.

SODOXYLIN.—Sodoxylin is one of the latest products of the Abbott Laboratories. It is a combination of remedies which opens up an entirely new field of therapeutic possibilities in medicine. It is an eliminant, antacid and intestinal antiseptic of merit, neutralizing hyperacid conditions of the system, modifying abnormal findings in the intestinal canal, serving as an efficient remedy to neutralize the toxin substances found in the system and to prevent their further production. Extensive literature regarding the remedy itself and the conditions in which it is of most value will be sent by the Abbott Alkaloidal Company, on request to Chicago.

GALACTENZYME.—A "sour-milk" ferment triturate of active lactic bacilli, a modified culture of the *Bacillus of Maszol* of which so much has been written in the past few months. Galactenzyme is a very efficient product in the treatment of intestinal putrefaction and auto-intoxication. It is supplied in bottles of one hundred tablets nicely flavored with chocolate and vanilla, or plain, as may be desired, at \$.35 per bottle (\$4.00 per dozen), very much less than the usual exorbitant prices charged by others. In addition to this a special tablet of the same culture is supplied for the home production of Bulgarian "sour-milk" (\$.35 per package). Bouillon cultures also are made to order for use as colonic injections, and for nose, throat and urethral work. Samples of the regular, edible tablets (mixed both plain and flavored in same package) will be sent by the Abbott Alkaloidal Company, on request to Chicago.

TREATMENT OF ACNE.—As acne is a chronic disease, and as cod liver oil in the shape of Cord. Ext. Ol. Morrhuæ Comp. (Hagee) exerts its best influence in chronic diseases of the skin, by its alterative and stimulating effects on the functional activity of organs, properly administered, it is one of the most reliable remedies in the internal treatment of acne. In anemic cases, it exerts its greatest power.—*American Journal of Dermatology*.

SCIATICA.—"One of the most common causes of sciatica is rheumatism; so often, indeed, is this the causative influence that some writers include it among the varieties of rheumatism," says Dr. U. C. Underwood of Louisville, Ky. "The treatment of the affection," he states, "includes remedies to counteract the constitutional factor at work in the production of the disease and measures looking to the relief of the pain. As anodynes, opium is to be studiously avoided in all cases. Antikamnia is a reliable anodyne, which does not produce cardiac depression and will give relief without injurious after-effects. In sciatica it is best given in tablet form, with salol. One antikamnia and salol tablet every two to four hours will act both as a curative and anodyne.

THE AFTER CARE OF OPERATIVE CASES.—It is a fact well established by hematologists, and well known to the surgeon, that a large majority of surgical diseases, requiring operative interference, are preceded, accompanied or followed by hemolytic changes. In addition to the more or less devitalizing effect of the original condition which brings the patient to the operating table, the necessary anaesthesia, if at all prolonged, reduces the hemoglobin percentage and the shock incident to the operation contributes, to a certain extent, to the surgical anemia. Hemorrhage, suppuration or sepsis, precedent to the use of the knife, of course inten-

sifies the post-operative chlor-anemia and renders more than ever necessary the employment of hematogenic measures during surgical convalescence. Judicious but generous feeding is of prime importance in such cases and sedulous attention should therefore be paid to the patient's dietetic requirements. Feeding, alone, however, will not hasten recovery as rapidly as a judicious combination of feeding with a hematinic reconstituent such as Pepto-Mangan (Gude). Except in cases in which it is not permissible to introduce food or medicine through the mouth, this palatable, readily tolerable and promptly absorbable organic combination of iron and manganese is distinctly indicated in preference to other blood building agents, because it is agreeable, non-irritant and free from constipating effect. Its hematinic, appetizing and general reconstituent properties are quickly evidenced subjectively, by a general feeling of well-being; objectively, by increased color of skin and mucous membrane, and hematologically, by a progressive increase in the number of erythrocytes and percentage of hemoglobin.

WARFARE ON TYPHOID FLY.—The fly must go. The edict has gone forth that means destruction for the household pest that for ages has been counted a necessary nuisance.

A new name has been given the insect. Instead of the "house fly" it is to be called the "typhoid fly." For it is declared that the fly carries disease and death with it. The warfare upon the mosquito has brought good results in many places. It is now proposed to push as vigorous a fight against the fly.

Several of the Southern States have undertaken the campaign. The Florida Commissioner of Health has published a set of instructions for dealing with the insect. Posters have been distributed broadcast throughout the commonwealth showing by illustrations the fil-

"The Passage of an Instrument

of any kind into the healthy urethra," says Sir Henry Thompson,

"must *per se* be a source of irritation . . . Of course, the amount of irritation will depend in great part on the manner in which it is passed."



K-Y Lubricating Jelly

reduces the discomfort by improving the manner of urethral instrumentation. Its emollient action also aids in subduing existing irritation in the prostatic invalid.

K-Y contains *No Formaldehyde*.

In collapsible tubes. Sample on request.

VAN HORN & SAWTELL
NEW YORK and LONDON, ENG.

thy habits of the house fly and its proclivities for gathering and disseminating disease germs. Georgia, Louisiana and North Carolina are active in the same fight.

The most effective attack is that directed against the breeding places of the insects. In some places registration of stable keepers is being required, with the purpose of punishing those who do not keep their stables in a sanitary condition, the manure pile being responsible for millions of the pests.

The South is leading off in this matter because the approaching spring is bringing with it swarms of the offensive insects. It is proposed to push the fight in the Northern States as the weather grows warmer.

No attention will be paid to the hopeless citizen who declares that there are too many flies and that, therefore, the

struggle against them is futile. What has been done in the case of the mosquito can be done with the fly. If public sentiment can be created, so that "slay and kill" becomes the motto of every one who sees a fly anywhere, it is believed that much may be accomplished in a single season.

SUMMER-TIME IS SPRAIN-TIME.—Some wit has said that "Summer-time is sprain-time." Golf, tennis, baseball and the other outdoor sports inaugurate a season of sprains and wrenches, and ankles, knees, wrists, elbows, shoulders and backs pay the penalty of a missed drive, an overhand smash or a slide to base. The resultant conditions, the stretching or tearing of ligaments, contusion of the synovial membrane and damage to vessels and nerves, are best remedied by the use of Antiphlogistine, which markedly aids in the reconstruction of the injured part.

By removing the products of inflammation, through the absorption of the liquid exudate from the swollen tissues, and by permitting free circulation of blood through the seat of the injury, Antiphlogistine acts as Nature's first assistant. The affected cells are stimulated and toned up through endosmosis, and the process of repair is greatly hastened.

Antiphlogistine should always be applied directly to the affected area as hot as can be comfortably borne, and covered with absorbent cotton and a bandage.

COLLAGOL.—Dr. H. Loeb (Schlesinger's Division of the Franz-Joseph Hospital in Vienna; *Therapie d. Gegenwart*, April, 1904) is entitled to the credit of having introduced the rectal method of administering Collargol. His conclusions were:

I. Collargolum enemata give the same results in acute infections (sepsis, puerperal fever) as Ungt. Crede or intravenous injection of Collargolum.

The good effect is surprising when joint affections or phlegmasia alba dolens have appeared.

II. Collargolum enemata are to be preferred to Unguentum Crede because the remedy is brought into contact with a surface of superior absorptive powers, can be used in larger amounts and troubles the patient less.

III. Collargolum enemata are incomparably easier to give than intravenous injections; they can be administered by anyone, are without danger and permit of much higher dosage.

IV. Untoward by-effects have not been observed from their use.

V. It is probable that this remedy and method will enable us to save septic patients whom we would otherwise lose.

IMPURE AIR.

Efforts to keep cold air out of the home lead to keeping something within the home that is the most serious danger to life and health, namely impure air.

Your clients who are afflicted with

DEAFNESS

will find it to their interest to investigate our

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and the various forms of indigestion caused by deficient digestive secretions and decreased gastro-intestinal motility are the chief indications for the use of

Colden's Liquid Beef Tonic

In cases associated with anæmia Colden's Liquid Beef Tonic *with Iron* is indicated. Samples with literature mailed on request. Sold by all druggists.

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Mathie's Malt Tonic

The Perfect Food Drink.

ENDORSED BY LEADING PHYSICIANS
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The stamina of the English and German people is due in a large measure to the use of malt liquors, the salts obtained from the malted barley being of especial benefit. As is well known, MATHIE'S MALT TONIC is a nourishing tonic, enriching impoverished blood and containing a large amount of nerve food rendering it an ideal treatment in all "run down" conditions.

We offer MATHIE'S MALT TONIC for your use. It is palatable, nourishing, stimulating and refreshing, with just enough alcohol to preserve it, and at a price which puts it within reach of all.

Insist Upon Your Druggist Giving You Mathie's Malt Tonic.

The Mathie Brewing Co: 1834-1856 East Main Street
Los Angeles, Cal.

CALIFORNIA HOSPITAL NURSES' ALUMNAE ASSOCIATION.

The regular monthly meeting of the California Hospital Nurses' Alumnae Association was held at 1103 West Eighth Street, Monday, April 26th, with Miss Johnson in the chair. The meeting was well attended. The subject of our National Convention to be held in Minneapolis, June 9th, 10th and 11th was discussed with enthusiasm. The Alumnae Association with one accord nominated Miss Eva V. Johnson, our president, to be sent as a delegate by the Alumnae. She was unanimously elected. Mrs. Harshaw Wilson, who expects to take an extensive Eastern trip was elected a second delegate. We are glad to announce these worthy delegates, for now we shall feel that our Association will be well represented.

A great deal of interest was expressed by all present in the California State Association Annual Convention, to be held in San Diego, August 2d, 3d and 4th. This is the first time San Diego has had this honor and we feel a personal interest in making the Convention a success. As many of our members who can are arranging to take their summer vacation at that time in order to take advantage of the privilege of meeting, renewing old acquaintances, and making new friends in the profession.

The usual program had to be curtailed on account of business.

The "Record Sheet" has three important engagements to announce—all June brides. Miss Douglass, superintendent of the Santa Monica Hospital, to Dr. French, U. S. C. This is an affair of interest to us all, as both Miss Douglass and Dr. French are well known and admired by the nurses. Miss Douglass was for two years assistant superintendent of the California Hospital. Dr. French served a successful internship

in the same institution. Miss Inez Blackledge (Class of '06) to Mr. J. B. McKay of Yale University. Miss Sue Miller to Dr. McRae.

Miss Thomas, who was so seriously ill with typhoid fever last summer, has just returned from the country, where she went to recuperate and assures us that she is in perfect health again. We have a rumor that Cupid has been up to his pranks here too, but of course since we cannot publish the fortunate gentleman's name, the formal announcement will come later.

We have word of the approaching wedding of one of our older members, but that is a real secret. Really things are looking up in the matrimonial way. Cheer up, girls.

Miss Graves has resigned her position at the Veterans' Home in Napa County, and we had her smiling countenance with us at our meeting.

Miss Elizabeth Hogue has resigned her position as superintendent of the San Jose County Hospital and is spending a few days in Los Angeles. Miss Hogue has incorporated a company known as The Peninsula Hospital Co., at Palo Alta. The foundation for the new structure is completed and plans in detail have been made for a thoroughly modern hospital, of which Miss Hogue will be superintendent.

Miss Ingalls, Miss Newkirk and Miss Ensign are contemplating an Eastern trip.

Miss Evelyn Caywood has returned recently from Arizona. We are glad to know that her sister, who has been very ill, is improving.

Miss Fenn and her sister were lately called to their home in Modesto, California, to the bedside of their mother, who was quite ill.

Antiphlogistine

(Inflammation
Antidote)



Applied from ear to ear as hot as can be borne comfortably by the patient, depletes the enlarged lymph glands, guards against the passage of toxines into the circulation and reduces the liability of Mastoiditis, Middle Ear and Laryngeal complications in Tonsilitis, Scarlatina, and other diseases of similar nature.

The dressing of Antiphlogistine must be at least an eighth of an inch thick, covered with a plentiful amount of absorbent cotton and held snugly in place by a bandage.

The Denver Chemical Mfg. Co., New York

THE TREATMENT OF DYSEN- TERY ESSENTIALLY PURGA- TIVE.

The uniform experience of Dr. Wyatt Smith, in the British Hospital at Buenos Ayres and Montevideo, of a large number of cases of acute tropical dysentery, confirms his conclusion that opium is pernicious; that the treatment of dysentery is essentially purgative, and that magnesium sulphate is practically a specific. Surgeon-Captain Johnson, of the British Service, as the result of six years' treatment of acute dysentery, says that magnesium sulphate in small doses appears to him, from its physical action, to be the drug *par excellence* for counteracting the pathology of dysentery. Patients may come into his hospital passing fifteen ipecac is useless, if not worse; that stools per diem, containing blood and slime, and the average duration of the attack is only two or three days, even for those on field service, when put on a purely milk diet, and given two drachms of magnesium sulphate every four hours combined with aromatic sulphuric acid, five minims, to counteract any severe griping that may be caused, till the flow of bile is well established, as seen in the stools. Dr. William J. Cruikshank, of Brooklyn, reports a similar experience with magnesium sulphate and dilute aromatic sulphuric acid in treatment of acute dysentery.

FOOD FOR THE TEETH.

Gaillardt Southern Medicine says: "It is evident, that no tissue can be 'brought' up—grow, and become useful parts of organs unless there has been furnished something to build with. The exact facts are that the teeth, since the advent of bolting machines, have had but very little to build with; and muscular tissue, too, has been deprived of calcareous matter that is essential

to a firm, dense texture in either tissue. These are the exact facts and admitted by everyone. The subject of the nutrition of the teeth is one the American people cannot treat with indifference much longer, or they will be an edentulous community. There is no food other than the *whole* of some of our cereals that can supply a sufficient quantity of calcareous matter for the teeth. It should not be forgotten that it is necessary to send these salts through the *umbilical cord* and the *mammary glands*, and equally important to *know* that they are in the *bottle* if the child be artificially fed. Also that the child and youth, up to at least the thirteenth year, *should partake liberally of these coarse bread foods.*"

Editor Howe, *Journal of Therapeutics and Dietetics*, says: "In order to get the best results from lobelia as an emetic, it should be given in small doses—the fraction of a drop—in tepid water every ten minutes until the system becomes saturated with the lobelia, when the single large dose—five to ten drops—given in warm water, will produce an emesis that not only empties the stomach, but removes much of the effete material from the blood. The emetic action is one of the minor uses of lobelia. One of the most frequent demands for the use of lobelia is where your patient complains of difficult breathing. The small dose of this drug—one-sixth to one-third of a drop in a teaspoonful of water, and repeated every fifteen minutes to every hour, according to the severity of the case treated—will almost invariably relieve this distressing condition and render your patient more comfortable." He says to get the best result from the small dose of lobelia it is advisable to use a preparation which is made from the seed. For an emetic you should use the remedy made from the plant.

SOUTHERN CALIFORNIA PRACTITIONER

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DR. WALTER LINDLEY, Editor.

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Assistant Editors.

DR. H. BERT ELLIS, DR. GEO. L. COLE and DR. W. JARVIS BARLOW,
Associate Editors.

OBSTRUCTION OF THE BOWELS.*

BY T. A. STODDARD, M.D., SANTA BARBARA, CAL.

In coming before you to-day with the present subject, I will only report the cases that have come to my hand the past six months, and leaving it to you for discussion, hoping thereby to bring out valuable features from your richer experience and broader observations.

Case I. I was called to see a Mrs. A. Found a woman suffering great abdominal pain. The point of the attack being in the right lower quadrant.

On examination found temperature 101.6, pulse 120 and poor. A large, slightly movable, tumor was observed low down on the right side. The whole abdomen was slightly resistant on palpitation and very tender.

On questioning, learned that she was 21 years of age, had been married three years, had never been pregnant and had menstruated three weeks previous to my call. This right side tumor was first noticed shortly after marriage and had slowly enlarged to its present proportions. Chronic constipation, difficult menstruation, and irregular attacks of right sided pain of increasing severity

was her whole pathological history, having any bearing on her present trouble.

About three weeks previous to my call a less severe similar attack had necessitated another doctor's attention. Since then she had not been well, but had been able to do washing on the previous morning. This attack began, rather suddenly, about 7 P.M. It was accompanied with great prostration, nausea, vomiting. Two soap-suds enemas with good results and some patent cathartics had been given during the evening, also $\frac{1}{2}$ grain morphine by mouth, one hour before my call.

Diagnosis of an absolutely operative condition was made. On the day of operation we found haemo. 80 % leucocytes, 32,000. Urine showed albumen. Temperature 101.6. Pulse 150 and bad.

Spinal injection of tropococaine was given and abdomen was opened through right rectus muscle. A large tense, black, gangrenous tumor pushed up into the field. On pushing it aside and searching for the appendix, my finger

*Read before the Southern California Medical Society, May 3, 1909.

struck something hard, which when brought to the surface proved to be a lima bean, about the size of a quarter. This object was free in the abdomen, had not been bitten into and was accompanied by a piece of tomato skin and faeces. It being impossible to find the exact site of perforation on account of adhesions and this tumor, the wound was packed with drains and patient returned to her bed.

Patient recovered from shock of operation nicely. Leucocyte count next day was 19,000. She was still very nauseated but otherwise comfortable. Second day after operation, on consultation, patient was put on table again, found adhesion too firm to allow manipulation and gut too gangrenous and friable. Patient was returned to bed after gut had been freely opened to allow drainage.

Day by day I cut away this gangrenous, intestinal tumor until I had a clean wound, with discharging gut, at its upper extremity and an opening into the caecum, at its lower. The patient rested very comfortably after the second operation, no pain except upon manipulation of wound and no nausea. However, she would not eat food in sufficient quantities or of the kind that would be of assistance and she gradually weakened and passed out five weeks after operation.

Post-mortem examination, showed two large pus tubes, right ovary, size of goose egg, cystic and degenerate, left ovary, normal, appendix, post cecal and bound down and the whole intestinal tract bound together by dense adhesions.

It was evident that this was a case of volvulus involving form 8-12 in of the lower ileum. A right-sided pyosalpinx caused the first adhesion to form about the intestine and was the source of the continuous formation of such adhesions, giving a chronic valvulous, which accounted for the tumor of three

years' duration, constipation and right-sided attacks of pain. Cathartics were able to so liquify the intestinal contents that it was not until this lima bean failed to pass the contracted lumen, that there was serious difficulty with the result described.

Case 2. Was called in consultation one evening to see a Mrs. H. Found a woman suffering abdominal pain of a spasmodic nature. Whole abdomen was greatly distended and tense. The only tender spot being in the left upper quadrant. Deep pressure in this region would bring on intestinal spasms accompanied with colicky pain and a great pear-shaped tumor whose base was down and toward the right could be outlined through the thick abdominal walls. Temperature was slightly raised and pulse good.

On questioning, learned that patient was 39 years old, seldom had had natural bowel movements. Had been down the whole line of cathartics and enemas. Seven years previous had been operated for a large pelvic tumor, nature of which was unknown. Her husband had been told by the operator that in its removal he had perforated the bowel in attempting to separate the adhesions present. At this time morphine had been used freely and the habit remained. She had been treated for the habit and the drug stopped when obstipation set in 48 hours before my visit. During this period of forty-eight hours she had had the customary treatment of calomel and enemas, which after clearing the rectum and discharging colon, failed to give desired results.

Diagnosis, mechanical plus dynamic ileus.

Operation was offered but on account of previous operative experiences such relief was positively declined.

Treatment. Large doses of morphine and atropin were given by hypo, also copious milk and molasses enemas. Forty-eight hours from the time of my

visit, flatus in great quantities was passed with enema, and the abdomen flattened, only to again be distended with increasing tension. This condition continued until daily passages were secured. Woman is now up and about having to take about four grains of morphine per day to relieve pain and intestinal spasm. Post-mortem alone will be our only means of verifying our diagnosis.

Case 3. I was invited to witness an operation upon a man 53 years of age. Patient had been suffering over a long period of time from constipation passing on to obstipation at times and very painful urination. At times passing blood, gas and faces from the bladder with his urine.

On opening abdomen the lower sigmoid and upper rectum was found to be involved in one large, malignant mass. Dense adhesions bound the posterior walls to bladder to the gut and through this connection the perforation into the bladder had taken place. The pelvis seemed filled with the tumor and its adhesions, abdomen was closed and patient returned to bed to die.

Case 4. This case, a Mrs. B. of 68 years of age, was brought to me December 15th, from the country.

On questioning, she gave the following pathological history. At the age of 10 years she suffered from a so-called dyspepsia and a cough which was supposed to be from tuberculosis of the lungs. This cough lasted for about 20 years, disappearing after marriage and her first pregnancy. During her young womanhood she had been sore and tender about the abdomen, more particularly over the left side and stomach. She could not rest her hands with comfort over the abdomen, as is the custom of women. This condition gradually cleared up with the cough symptom. Was chronically constipated, but never employed a doctor for this condition until three years ago. When, colicky pains with no known cause, pre-

ceded by severe headache, were the cause of medical aid. All the pains seemed to start from the stomach and then pass down and across the abdomen. At first a cathartic cleared up all these symptoms, recently cathartics, enemas, etc., failed to give desired results. Last summer patient had three severe attacks of abdominal pains. For a month previous to December 12th, the constipation, pain and discomfort grew distressingly worse, until obstipation set in December 9th.

On examination found temperature 99.8°, pulse 88, and good. Involuntary addominal spasm of a sharp colicky nature occurring every fifteen minutes. These seemed to start with slight discomfort in splenic region, then a sharp pain passed across the abdomen and the ascending colon would rise up in a large pyriform mass, base over the pubes, apex up under the liver.

Her abdomen was opened through the right rectus muscle. The ascending colon presented in the wound. It was greatly distended, covered with a dull gray sheath of fibrinous exudate which on incision could be peeled from the colon as the skin from an orange. Three or four blackened spots about the size of a nickel on the right side of the bowel were noticed. These spots cleared up satisfactorily on freeing the bowel from adhesions—the appendix was found degenerate, bound down post-caeally, a mere cord, whose lumen could not be demonstrated on removal. A band of omentum was bound over the hepatic flexure of colon and dense adhesions here completed the obliteration of the lumen of the gut. The gall bladder was adherent to the transverse colon, the stomach was found to be normal as was the transverse colon under it. The descending colon appeared normal to the hand and on inserting a tube per rectum, gas escaped, leading us to believe all obstructions had been removed. Patient's condition prevented more minute examination and abdomen

was closed with through and through sutures to save time.

Two days later patient began to vomit, a suture was cut, caecum exposed and opened. A catheter drain was put into the caecum through which daily lavage was performed and sufficient drainage maintained. After one week, tube was removed so that patient could get up and about. Daily irrigation was kept up until January 12th. During this period patient gained in weight, appetite remained good and although strychnia, aserine and daily enemas were given, no faecal result and only occasionally did flatus reward our efforts.

On January 12th, patient's abdomen was again opened. On inserting tube per rectum and distending descending colon with water, we found the point of obstruction to be at the splenic flexure of the colon. This we found difficult to bring into the wound for it was bound down by dense adhesions and there was practically no mesentery. We found that the point of flexure a hard mass about the size of a walnut, involving all the coats of the gut. No glands seemed involved, and the gut appeared normal in every respect, except at the point of growth. Taking into consideration the patient's condition, the lack of microscopical signs of malignancy, history of T. B. and abdominal symptoms of over forty years, we decided resection would not give her as good a chance of recovery as a less radical measure. Hence a lateral anastomosis between the transverse and descending colon adjacent to the growth was done by Halstead's suture method. Abdomen closed and caecal fistula opened so as to keep patient comfortable. On January 15th we obtained the first bowel movement in over month. This was followed by six voluntary movements that night. Five days later patient was up and on January 31st left the hospital, wounds all healed including the caecal fistula.

On February 20th I was called and found at the side of the caecal fistula a sinus discharging gas and faeces, also a very much distended abdomen. Sent patient to the hospital, opened and repaired caecal sinus. Patient was up in four days but failed to brighten up as before, bowels moved every day under the influence of enemas but results grew progressively smaller and on February 28th enemas ceased to be effective. Hence combined morphine and atropine with ox gall enema and got the desired results for five days when everything failed. I then opened up the old caecal wound and re-established drainage which gave great relief from pain and improvement in the patient's condition. Three days later we again opened the abdomen and found it to be one mass of adhesions. By means of rectal tube was again able to locate the obstruction at the old point. A second anastomosis was done over the site of the first one. Abdomen closed in layers except in the middle of the wound where two through and through sutures were placed so as to allow easy drainage if necessary.

Next morning intense spasmodic pains at the site of anastomosis started and continued for five days. On the second day I removed the first through and through suture and the next morning got a faecal fistula through this point. It was not until six days after the operation that we were able to get a bowel movement with our enema. Patient had a voluntary movement on ninth day and left the hospital on the thirty-fourth day having daily bowel movements. Her recovery after her last operation was slow but a kind nature, a remarkable hopeful disposition and constant drainage of the faecal content through our colostomy made our favorable results possible.

GENTLEMEN:—Dr. C. L. Scudder of Boston in his admirable article published in *Boston Medical and Surgical Journal* of October 15th, 1908, divides

causes of obstruction into *non-mechanical* and *mechanical*. He says, *non-mechanical* coprostasis may be due to—abdominal contusion—abdominal inflammation—may be met with in pneumonia or acute nephritis—or following trauma or sepsis from a laparotomy.

Mechanical—due to bands, adhesions, kinks, intussusception, volvulus—hernia—foreign bodies within the intestine and tumors within or pressure from those without the gut.

The symptoms are due to, *first*, obstruction of the passage of the normal bowel contents, *second*, obstruction to circulation of blood in the walls of the intestine, i e., local changes. The *symptom complex* is out of all proportion to obstruction per se, it is mostly due to changes in the contents of the gut through bacterial action—action of toxins on the plexus of Auerbach—gas distensions and profound intoxication from absorption from the gut. Changes are so rapid that delay is fatal.

One death out of every 500 from all causes has been laid to the credit of mechanical obstruction of the bowels. Hence I would like to impress on you the absolute life-saving necessity of early diagnosis. Whenever you see a case of abdominal pain—vomiting—coprostasis and meteorism think of mechanical obstruction and don't delay operation too long.

From the literature I find a death rate of 50 to 80 per cent. for all cases operated. Moynihan had a mortality of 32 per cent. immediately following resection in his series of 68 cases.

These figures mean that either our diagnosis is too late or our treatment too radical. Research has thus far given little clinical aid to diagnosis, but it has made operative procedures safer and the results better. It has given us a better understanding of the causes and consequently the treatment.

In the last copy of *Surgery, Gynecology and Obstetrics* of Chicago there is a

plea for a two-stage operative procedure and this point is well made. Understanding that the obstruction, though primary, is the least feature of the disease to be feared—colostomy under local anaesthesia, if you please, is proposed as step number one, and when patient is in proper condition a more radical operation of repairing the original trouble is undertaken.

It appears to me that the stand taken by Dr. Wills before the State Medical Society in San Jose in his paper on fractures is rational, i. e., that it was the end result we were after and if any nicety of technique had to be sacrificed for that purpose or for the comforts of your patient, the surgeon is not doing his whole duty when he loses sight of these facts in his anxiety for a technically perfect operation. If you watched the relief from pain and discomfort—have seen your patient pick up in strength and spirit, following colostomy, even though you knew that you had only substituted a tolerable for an intolerable condition, you have been well rewarded for your efforts.

In reviewing the case of Mrs. B. I consider the maintenance of free drainage from the caecum to have been the most important feature of the handling of that case, for it made all other proceedings possible.

The faecal fistula after the last operation bring up another point of procedure, it is possible and probable that during our dissection of adhesion at operation, the integrity of the gut was interfered with and we had the resulting fistula. But it is also possible that we had here some feature similar to that which Drs. Joseph A. Blake and R. M. Brown of New York have described in *Annals of Surgery* of October, 1907. Here they tell of removing a portion of the colon for a hyperplastic T. B. of the sigmoid and anastomosing the rectum to the transverse colon leaving a blind pocket of some

eighteen inches in length. After ten months the patient returned to the hospital with a faecal fistula from the end of this blind pocket through to the surface on his left side. In my case we had a blind pocket of possibly one-half inch in length at sight of anastomosis, which anastomosis became shut off from some unknown cause and at which point we had the spasmodic pains.

In all occluded or excluded portions of intestines constant drainage to the surface should be provided for, for the accumulation of inspissated mucus and of cellular debris is so rapid that some authors have been led to believe that the colon has an excretory as well as a secretory function. Gant of New York has a most admirable chapter in his last work on drainage of excluded portions of the intestines.

Obstruction due to T. B. deposits is more common than supposed.

Von Bergman states that T. B. is the chief cause of stenosis due to ulcers, not malignant.

Einherdt states that symptoms of stricture occur in 25 per cent. of all cases of T. B. ulceration of the intestine.

Beach in 81 autopsies found stricture due to T. B. in 34 and in carcinoma in 14 cases.

Fenwick and Dodwell in 2000 autopsies of pulmonary T. B. patients found T. B. ulcers in the transverse colon in 30 per cent. of the cases. Of these the stenosis was due in the greater number to cicatricial contractions.

Again, J. B. Murphy says, "we have annular contractions from cicatricial deposits in the fibrous coat of the bowel in which the mucosa shows no evidence of having been involved, resembling septate ileus. The etiology of these contractions is not known."

Upon these facts, the history given by the patient, and the finding at operation, I based my diagnosis of T. B. obstruction. Had I known this case was to be reported I would have taken a section for microscopic diagnosis and verification.

The question of excision, re-section and end to end anastomosis of the large intestine, which procedure, I believe is that to be preferred when choice is allowed, was not allowed me. The patient's condition made saving of time and freedom from any added shock an important factor. So, trusting to kind nature, a side anastomosis was made, preferring a less technically perfect operation to a dead patient.

FRATERNAL INSURANCE.*

BY C. W. PIERCE, M.D., LOS ANGELES, CAL.

I have the honor to present for your consideration tonight the subject of "Fraternal Insurance." What is it? It is a phase of life insurance which has interwoven with it the golden thread of Fraternity. A Fraternal Benefit Society, as defined in the Constitution of the Conference Committee Bill of The National Fraternal Congress and the Associated Fraternities of America is, "Any corporation, society, order or

voluntary association, without capital stock, organized and carried on solely for the mutual benefit of its members and their beneficiaries, and not for profit, and having a lodge system with ritualistic form of work and representative form of government and which shall make provision for the payment of certain benefits is hereby declared to be a Fraternal Benefit Society."

Fraternal Benefit Societies have a

*Read before the Los Angeles Medical Society, May 7, 1909.

membership today of over six million men and women. They have assets of nearly eight billion dollars. They have disbursed nearly one billion and a quarter dollars to the beneficiaries of their members during the comparatively short period of their existence. The medical societies throughout the country, generally, have little understood the scope of the work being done by this vast organization.

Realizing the necessity of selecting risks as carefully as possible, in order to protect their societies against excessive death rates, the medical directors of the different organizations or societies have been dependent upon our profession for assistance. The greater part of this work falls to the young practitioner. He is often just out of school and is looking for an opening, an acquaintance. He wants something to do. He joins a fraternal society and immediately makes acquaintances and friendships which are valuable to him in after years. He examines applicants for a sum which seems inconsiderable to many of you older men, with a lucrative practice, but do you realize that the great rank and file of the applicants for membership in the fraternal societies are men and women who never have five dollars to their names at the end of the week? Therefore, should they have to pay a large fee on admittance into our ranks they could never be secured as members. When a doctor makes an examination of an applicant for one of these societies there has been no large premium collected. The applicant pays the examiner, though it seems a small fee, all that he can afford to pay in nearly every instance. That examiner is performing an act of charity second to none and assists in one of the greatest philanthropic movements of the age. He is putting into practice one of the fundamental principles for which fraternity stands. What is the source of the enormous dividends paid to the stock-

holders of old line insurance companies? What makes the stock in some old line insurance companies so valuable? Of course, there can be but one source, and that the policy holder, who pays his annual premium.

It has been said ever since the organization of fraternal societies that our rates are not sufficient to fulfill our obligations. That may be true in many instances, but fraternal organizations gradually establishing a basis of rates which according to the experienced actuaries will make them as sound as any old line company. Fraternal societies do not compete with old line insurance companies nor is that their mission. We do insist that we have a place, a mission to perform, that there are millions of men and women who never get a start financially, but who can make a start in the way of protecting their families by being able to buy the kind of insurance fraternal societies have to sell, and no man can limit our bounds or question our right to live.

Medical Societies, in insisting upon a large fee for examinations, little realize the impracticability of their ruling. To me it is strange that a profession that gives its substance, and oft-times its very life to prevent disease and crime should give so grudgingly of its knowledge to this great cause. President Roosevelt truthfully said, "This government will endure just so long as those principles which underlie the fraternal orders, namely—the protection of the home—are fostered and maintained." Would you enact laws in your society which would in any way curtail or limit the work of these societies where men and women are given an opportunity to practice thrift, and are brought together in an organization where they are surrounded by those who will comfort them in their sorrows and aid them in their misfortunes; which teaches them to protect their families and dependent ones by providing against the

day when death shall call the bread winner to his long home?

As someone has said, "Universal education and Brotherhood are moving forward hand in hand. No longer is there so much interest in that which contributes to the luxury and extravagance of the few, as there is in solving the problem of how all may be made better and happier. Not how great wealth can be accumulated by the few, but that the means of livelihood and comfort be given to the many, and that every honest man and upright woman should be able to care for loved ones and have a fair chance of solving life's problems and meeting its requirements." Is it not well to displace almshouses with old age pensions? A great share of that which has formerly been considered a necessary burden can be taken care of by fraternal co-operation.

As has been said fraternal benefit societies have a membership today of over six million men and women in this country. These numbers to a great extent represent the working force of our nation. It matters not what may be the name of the society with which they may affiliate. They are easily accessible in carrying out any fixed plan or movement for benefiting their general condition physically, morally or financially. In other words, with this multitude of men and women we have a nucleus of development more accessible than in almost any other organization. There are many reforms, notable the movement having to do with matters affecting public health, receiving widespread attention. How easy a matter it will be to bring these suggested reforms before these organizations.

Professor Irving Fisher of Yale University suggested the following: "According to the plans I have in mind the money which the life insurance companies would invest in life saving would not be in hospitals or sanitoriums, but in the education of the public, and

especially their policy holders in health matters, and the joining in every legitimate way to improve the public health offices and services in the municipalities, states and the federal government. Just as fire insurance companies endeavor to secure in municipalities adequate fire protection, so life insurance companies might properly endeavor to secure adequate municipal protection, and they might likewise bring their influence to bear to secure the passage of model health laws by our states in respect to slaughter houses, pure food and other health reforms. It is agreed by all competent judges that there is now a great and needless waste of human life, and it is obvious that the financial weight of this waste falls largely on the policy holders."

He adds further, "That human life can be extended at least fifteen years if proper health reforms are carried out." If that be true, and the average human life can be extended one third it follows that mortality tables would have to be revised and lower rates will be in order.

Professor Norton recently stated, "The department of agriculture spends seven million dollars on plant health and animal health every year, but, with the exception of the splendid work done by Doctors Wiley, Atwater and Benedict, Congress does not directly appropriate one cent for promoting the physical well-being of babies. Thousands have been expended in stamping out cholera among swine, but not one dollar was ever voted for eradicating pneumonia among human beings. Hundreds of thousands are consumed in saving the lives of elm trees from the attacks of beetles; in warning farmers against blights affecting potato plants; in importing Sicilian bugs to fertilize fig blossoms in California; in ostracizing various species of weeds from the ranks of the useful plants, and in exterminating parasitic growths that prey on

fruit trees. In fact, the department of agriculture has expended during the past ten years over forty-six millions of dollars, but not a wheel of the official machinery at Washington was ever set into motion for the alleviation or cure of the diseases of the heart or kidneys, which will carry off over six million of our entire population. Eight millions will perish of pneumonia, and the entire event is accepted by the American people with a resignation equal to that of the Hindoo, who, in the midst of indescribable filth, calmly waits the day of the cholera."

I believe that nothing can stem the tide now setting in so strongly in favor of better and more intelligent conditions in the United States. It has been stated that the mortality due to pneumonia, one of the greatest destroyers of life, can be vastly reduced by moderation in eating and drinking and living in properly ventilated houses, as much as seventy-five per cent., and that the forces now organized to stamp out tuberculosis have only begun a great world movement.

No one realizes the necessity for the improvement of health conditions and the value of organized forces in stamping out the many preventable diseases so well as those at the head of insurance organization, and these matters are

being discussed by each and every fraternal society. Suggestions along the line how to improve sanitary conditions are brought to the attention of the members in nearly every issue of the paper representing the different societies and sent out to many thousands of members.

In closing I wish to recapitulate that fraternal insurance societies have a vast hold upon the brain and brawn of this country. They are not in the insurance business pure and simple, but what insurance they do write is at an actual cost, whatever that cost may be, as determined from time to time by actuaries, they are not organized for the profit of any individual but for the betterment of all who may care to affiliate with them. They are a tremendous force in this country today which can be wielded for the betterment of the entire body politic. We do not wish to antagonize any old line insurance company for they have their field in which to operate and their mission to perform. We ask the medical societies to assist us in our work, and trust that any ruling they may see fit to make with regard to establishing fixed fees for examinations may be tempered with the spirit of philanthropy which has ever been the watchword of the disciples of Aesculapius.

A PLEA FOR CONSERVATIVE TREATMENT OF THE UTERUS AND ADENEXA.

BY LEVI D. JOHNSON, M.D., WHITTIER, CAL.

The American people, as a nation, have the reputation of going to extremes. There is an intensity of life and purpose manifested with us, such as does not characterize any other people. It has only been a few years since the uterus and its appendages received

any surgical treatment. Practically this began with the introduction of aseptic surgery. After the introduction of surgical treatment for the uterus, ovaries and tubes, as a profession we went to the other extreme, and it was dangerous for a woman to speak of having any

pain, tenderness, or even a vaginal discharge, without the probability of having one, or both, ovaries removed, and very frequently the uterus also.

The large increase of the fashionable disease, gonorrhoeal infection, had something to do with this wholesale unsexing of woman. For a time gynecological surgeons believed this was the panacea for the pains and ills due to pelvic abnormalities. It required a few years to demonstrate the true status of results. Even in this surgical work in its incipency, there was a psychic effect which had not been properly measured. When it was a new thing to remove the ovaries, or ovaries and uterus, and the patient was positively assured if this were done she would be free from these nervous symptoms, the newness of the operation, the fact that it was considered a very difficult and rare procedure, and the confident expectancy that aches, pains and nervousness would disappear soon after the organs were removed, figured more largely in many cases, in an amelioration of the sufferings, than did the surgery performed. But there was another phase of the subject which had not been reckoned with, namely, the profession as a body seemed to take it for granted that surgery could and would cure all these troubles, and relaxed their efforts to treat these diseased conditions by any other method than surgical.

During a post-graduate course of lectures I heard a world-renowned surgeon say in his clinic that the time had come when it was a waste of time and energy to try any other method of treatment for the then so-called cystic degeneration of the ovary, except surgical treatment, the sooner done the better, and that he had operated on his last case for the removal of one ovary without removing both, and the uterus with them; that if one ovary was removed it was only a question of time until another operation would be re-

quired to remove what was left. Thousands of women were operated from this view point, not only by this eminent teacher, but by those who listened to his instructions. It was found, however, that many of these cases who were so thoroughly operated upon came back in the course of a few months or years far from being well. Then the theory was, adhesions had taken place, and this condition called for another operation. Many women submitted to from one to four laparotomies with the vain hope of being cured, only to be disappointed, and finally become discouraged and drag out a miserable existence, a nervous wreck.

Do not misunderstand me as condemning all surgical procedures upon the pelvic viscera, for we have all seen brilliant and permanently satisfactory results from surgical interference. It is the wholesale removal of the uterine organs against which we protest.

A few years prior to the discovery of aseptic surgery, another method for the treatment of diseases was discovered, but for various reasons came into use comparatively slow. I have reference to electricity as a therapeutical, and shall I say surgical, agent. I well remember when a medical student, of Prof. Davis of Chicago inviting a few of us to his office one evening to demonstrate to us the workings and uses of an electrical battery. It was a large and crude arrangement, in comparison with what we now have the privilege of using. Very little was then known of the dosage of electricity, such a thing as a milliamperemeter was unknown, or at least unused, and really only about three or four things were known about it.

The galvanic and Faradic currents were known, but crudely understood. The most wonderful thing explained and demonstrated to us was the actions of the positive and negative poles upon a piece of raw beef. The law of cataphoresis was then unknown, or undemonstrated. This one evening cov-

ered all the teaching which we received in the entire course of lectures on the subject of electrical therapeutics. However, it was extremely interesting to me and the demonstrations upon the raw beef, of the negative pole liberating the gases, with its softening, breaking down effect, while the positive pole produced just the opposite, started me to thinking, and as the Irish brother said, "I have been thinking hard and fast" ever since.

The remarks which I have made thus far have been of a preliminary nature leading up to my subject. They have been for the purpose of showing the need of conservatism in the treatment of the uterine organs and then to indicate the agent to take the place of the knife.

I believe that every woman who has uterine, ovarian or tubal disease, has the right to a fair trial to get well by the best methods known, without sacrificing any of her organs. I am here to declare my convictions after twenty-seven years study and experience along these lines, that electricity properly used can and will do more for these cases than any other agent. I most heartily believe in and use the knife, but a large majority of cases which a few years ago were considered hopeless from any other standpoint than surgical, and certainly many became hopeless after the operation, can be practically painlessly and permanently cured with proper electrical treatment.

Two or three fundamental principles to be laid down, which we all know, but let us review them.

The positive pole is the one which sends, so to speak, the medicinal agent in cataphoresis, with the exception of iodide of pot. If we wish to use that cataphoretically, we must use it with the negative pole.

The positive pole has a hardening effect upon tissue, lessens the flow of blood to the parts, acts as an astringent,

while the negative pole softens tissue, increases the flow of blood, and assists the system materially in absorptions.

We have all seen cases similar to this. Patient complained for years of pain in ovarian region, probably more on left than right side, pains in the back and painful menstruation, and usually with excessive flow, many of them with a gonorrhoeal infection, frequently complaining of an excessive vaginal discharge.

When you come to make an examination you find about the following conditions: An eroded os, with a muco-purulent intra-uterine discharge; bi-manual examination will reveal enlargement of uterus, with a decided bogginess in tubal region, and very frequently a posterior fixation of the uterus, caused by adhesions. This is a typical case for surgical interference.

Many—a large majority—of these cases, can be cured without the knife, by the proper use of electricity. Before giving my opinion to a patient as to the manner of treatment in such a case as described above, I usually give her a trial treatment, which consists in a large pad being placed on the abdomen for the negative, and the positive attached to a large zinc bulb freshly amalgamated with mercury in the culdesac. I then gradually turn on from thirty to fifty milliamperes, and if this does not produce severe and lasting colicky pains, it is a favorable indication that satisfactory results will be obtained by electrical treatment. If, however, severe pain is produced I would have serious doubts of curing the patient with electricity. If electrical treatment is justifiable such a patient can be cured in from three to six months, without the knife. I usually tell them it will take about six months, but they are frequently agreeably surprised by being well in a shorter time.

Sometimes the treatment is begun with a large pad wet with a solution of

mag. sulph. placed one on the abdomen and one on sacral region, polarity used as indicated according to whether the menses are scant or profuse. If scanty, use negative on the abdomen. This will nearly always give quick relief. This is followed, if the uterus is enlarged and fixed, enlarged ovaries and boggy tubes, with the zinc mercuric intra-uterine electrode, usually using about fifty milliamperes for from four to six minutes each treatment.

With this kind of treatment these cases recover and are permitted to retain their organs, and may become pregnant. Thousands of such cases have had the ovaries and tubes removed and then never made a recovery.

I believe the cases which are com-

monly curretted are rare, which cannot better be treated with electricity, getting better results and leaving the endometrium in a normal condition.

I might dwell upon the technique of electrical treatment for dysmenorrhea, amenorrhoea, cancer of the uterus in initial stages, I mean by that, while confined to the uterus, but my idea has not been to enter into details of treatment, for I take it for granted that you all understand the theory; but my purpose is to urge a trial of electricity, a thorough, conscientious trial, before using the knife. Many of your patients will be saved from an operation and mutilation, by these conservative methods of treating the uterus and adnexa.

RUBEOLA, RUBELLA AND SCARLATINA: PROPHYLAXIS AND TREATMENT OF TYPICAL CASES.*

BY PAUL ALLEN ADAMS, M.D., LOS ANGELES, CAL.

A. PROPHYLAXIS.—I. *Rubeola*.—Not infrequently the laity and at times even physicians and nurses have been heard to observe, that if one child in a family has measles there is no real necessity of separating this child from the other children, for they have all "got to have it," and the sooner they get through with it the better. As a result its prevention is thought to be of little importance, and no effort is made to limit its extension.

This teaching might be sound enough if they all did get "through with it," although what justification can there ever be in exposing a person needlessly to any infection, however slight. The disease may appear in the second person in a far more aggravated form than in the first. The great probability that every person at some time in his life will have the disease is no excuse for unnecessary exposure.

The greatest reason, however, for protecting a child from one who has measles is because of the fact that among the eruptive fevers, measles ranks third in death rate (Osler). This is not because of the disease itself, but because of the pulmonary complications which render it one of the most serious of the diseases of children, causing what would ordinarily otherwise be quite a trivial malady, to frequently become a source of great danger, and often to be followed by death. If the conditions are favorable for the care of a child, it is a most rare thing to have a fatal termination in uncomplicated cases. When death occurs it is most often during the second week; that is, after the course of normal measles would have been completed. Osler gives the death rate in private practice as from 2 to 3 per cent and in hospitals from 6 to 8 or 10 per cent. Holt states that the gen-

*Read before the Los Angeles County Medical Association, December 10, 1908.

eral mortality of the disease is from 4 to 6 per cent; but in epidemics in institutions for young children it has, in his experience, ranged from 15 to 35 per cent.

In the light of these facts prophylaxis in measles becomes of the greatest importance, and is carried out with difficulty as it is the one disease that is most contagious during the period of incubation, when accurate diagnosis is often impossible. In older children the disease usually runs a mild course, while in infants the opposite is true and they should be especially protected, as should all children with an inherited or local tendency to tuberculosis. Since the mortality is so much higher in institutions than in private practice it is of the utmost importance to secure prompt and complete isolation of the first case which appears.

The radius of infection in measles is small, the disease being usually spread by the patient, and rarely from furniture and clothing. Because of this fact, while early isolation is more important, the same thorough cleansing and disinfection which should follow a case of scarlatina is not required in these cases.

If measles can be carried by a third person, it is only by contact with the secretions from the eyes, nose and bronchial tubes or possibly from the desquamation, although this is somewhat in doubt at the present time.

While some writers assert that a month should elapse before a patient be permitted to mingle with unprotected persons, others such as Girard claim that quarantine is not necessary after the eleventh day of the disease. However that may be, the experience of most men seems to be that the germ of measles has a feeble vitality, and quarantine need not be as protracted as in some other infections.

The closing of schools where measles has appeared is a matter for serious consideration because of the contagiousness of the disease during the period of

invasion. Institutions and wards where cases have been seen should be quarantined for from two to three week before one would feel secure in admitting other children. Children in private families that have been exposed should be quarantined apart from the patient for two weeks, but not sent away, and should not be allowed to attend school while the disease is in their homes, chiefly because they are otherwise liable to spread the disease while suffering from the early symptoms. It is by contact with cases in this stage and with those mild cases in which there is little or no fever, that the disease is so readily disseminated through schools and conveyed to healthy children through contact in play on the streets and within the school grounds.

The person with measles should be kept in a room to which only those who are caring for him are admitted. Contact with the remainder of the house should be restricted as much as possible. After the patient recovers this room should be thoroughly cleansed and disinfected before it is again occupied by children, and it is better if it can remain vacant for at least a week.

While the eruption is in evidence the contagion will be much less disseminated, and the patient made more comfortable, if the entire surface of the body is thoroughly oiled once or twice daily. All soiled clothing in connection with the patient or sick-room should be soaked in disinfecting watery solutions and boiled separately.

The fact that the disease is not easily carried by a third person gives rise to little or no danger from attendants or physicians coming in contact with others, especially if an outer garment is worn when attending the patient and the hands, face and hair are washed. Physicians as a rule do not give much attention to these matters when attending measles, but the least they can be expected to do is to have these cases last on their lists of calls, and let some time elapse before visiting healthy children.

The cases of measles should be isolated until all symptoms have subsided, then the patient may be given a hot bath which will remove nearly all desquamated epidermis and along with it the contagious principle of the disease. Contagion-bearing particles from patients with measles introduced by inoculation have produced definite attacks.

The greatest prophylactic measure we can hope for in the future is some procedure similar to this employed against small-pox, where by inoculation, the patient may be protected against measles.

2. *Rubella*.—As rubella is propagated by contagion, and by that means alone, isolation can be expected to accomplish more in the direction of prevention than it does with measles or scarlatina. Until the diagnosis in any case is positive from these diseases, isolation should be complete.

Isolation is not necessary, however, in private cases as there is no mortality and few if any complications. In institutions, however, where most of the cases have been seen and where mortality has been observed, the same precautions should be taken as in measles, and the patient isolated for two weeks, or until desquamation has been completed.

3. *Scarlatina*.—Isolation is the only known prophylactic against scarlet fever, whose area of contagion is so great that the greatest precaution has ever to be exercised to prevent its spread. Much can be accomplished along this line if the physician exercise scrupulous care in each case.

The patients are best cared for in a well ventilated room, preferably at the top of the house, as that part is most easily quarantined, and during the attack should be stripped of upholstery, hangings and carpet, and should be freely ventilated and kept as clean as possible. Even the mildest cases should be isolated for four weeks (Holt), and all cases until desquamation is complete. If complications of the ears, nose, throat, suppurating glands, etc., exist the

quarantine should be continued until these conditions are cured. If there are other children in the house who have not been exposed to the disease, they should be immediately sent away; those who have been exposed may be separately quarantined for at least a week.

The person directly caring for the patient should be quarantined with the patient, wear a covering to protect her hair and a gown, and not mingle with other members of the family until a complete change of clothing, including shoes, has been made, and hands and face thoroughly disinfected. It is a wise precaution for all persons in close contact with a scarlet fever patient to frequently spray the nose and throat with some antiseptic solution.

All handkerchiefs, towels, linen and clothing soiled by the patient should be immersed, without removal from the room, in a 1 to 20 solution of carbolic acid for two hours and then boiled in water for an hour. They should be laundried separately from the articles of the household.

In making applications to the nose and throat the greatest care should be exercised to prevent the patient coughing the discharges into the face or on to the clothing of the person making the applications.

All plates, cups, glasses, knives, etc., used by the patient should be kept in the sickroom, and washed with carbolic solution, and hot soapsuds. The dust in the room should be removed by a damp cloth which should be burned, and the floor occasionally sprinkled with a 1 to 1000 bichloride solution.

When the patient begins to desquamate the spread of the disease may be largely prevented by bathing the body once daily in warm soapsuds and then rubbing the surface with oil or carbolated vaseline.

The greatest danger, in any community, of the spread of scarlet fever, lies in the schools. It is here especially that we must be on our guard for the mild

walking cases where the disease has not been recognized, and in the persistence of the infection in the secretions of the nose, throat and clothing of patients who have had a severe form of the disease, and have recovered.

A child should as a rule be kept from school for six weeks from the beginning of the attack, and desquamation should be complete and no sequelae present. The other children in a family should stay out of school a month. This is important because of the liability of carrying the infection from the patient at home, or because they themselves might be suffering from an invasion of the disease even before the symptoms were manifest.

During a severe epidemic it may become necessary to close all the schools in order that children may not come in close contact with each other.

A more rigid system of inspecting school-children would be of great value in all our large cities. We look forward to the time when the children shall be constantly under the eye of a medical inspector who shall regularly inspect them before they enter school. Where tried the results have been most excellent in reducing the spread of contagious diseases and the subsequent mortality therefrom.

After recovery the patient as well as the room in which he has lived should be thoroughly disinfected. The child should first have a bath, the entire body including the hair and scalp being scrubbed with soap and water, and then washed in a 1 to 5000 solution of bichloride, followed by an alcoholic rub. The nose, mouth and ears should be disinfected as far as practicable with antiseptic sprays. The patient should then be dressed entirely in clean clothes which have not been in the room during the illness.

Nothing should be removed from the room until it has been thoroughly disinfected. The room at this time is probably a greater source of danger than

the patient. The floor, woodwork and walls, where practicable, should be wiped with damp cloths wrung out in a 1 to 2000 bichloride solution. After a thorough cleaning the room should be tightly closed and fumigated with sulphur, or better still, formalin. Materials in the room such as bedding, cushions, carpets, etc., should be so scattered about that the gas may easily reach and penetrate them. The room is kept closed for twelve hours and then thoroughly aired. After severe attacks it is sometimes considered wise to repaint the woodwork and whitewash or repaper the walls as the case may be.

It is the duty of a physician in charge of a scarlet fever patient to carry out the most rigid disinfection possible. If he is a busy man it may be irksome to him to do this, but intelligent people will expect it of him and his interest in the welfare of his patients will demand it. It would be well for him to always bear in mind the special susceptibility of obstetrical cases, and patients with recent wounds, when he is at the same time attending a scarlet fever patient.

Generally speaking, the danger of spreading this disease is greatest from the patient, next from the room, and thirdly from physicians and nurses. And that brings us back to our original statement that isolation, complete and immediate, of the first case that appears, be it mild or severe, is our only prophylactic safety.

B. TREATMENT OF TYPICAL CASES.—
1. *Rubeola*.—We know of no method at this time by which immunity from measles can be produced, the disease aborted, or the severity of an attack lessened.

The specific for the disease has not yet arrived. The infection, however, is self limited and an ordinary case will require little, if any treatment other than hygienic, bearing in mind always that it is the complications that make the disease a serious one to deal with. Treatment, therefore, should be along

the line of protecting the organs which are most likely to be attacked by complications.

Early in the disease, especially during the prodromal stage, the nose, throat and eyes may be affected, later the skin may become very sensitive and easily irritated, and very frequently the lungs become the seat of severe complications.

The patient should be kept in a well ventilated room having a temperature of about 70 degrees, and should be confined to bed with light covering during the attack and until the temperature has been normal for a few days, the rash has disappeared and desquamation has about ceased.

The room should be darkened, and the eyes protected throughout the disease, as they are sensitive to light. If there is much conjunctivitis the application of small cloths taken from a piece of ice, and often renewed will be found to give relief. Boric acid solution is valuable to keep the eyes clean, and a single ointment applied to the lids will prevent them from becoming stuck together. If much burning and itching of the skin is present this may be relieved by inunctions of plain or carbolized vaseline.

The diet should be light or fluid, depending upon the temperature, and the bowels should be kept freely open. During the first few days anorexia may be so complete that all nourishment is refused. This is of small importance since as a rule the course of the disease covers only a few days, and if the patient will take milk, with or without lime water, that is all that is to be desired.

A certain amount of cough is always present, and, when distressing, will require attention. If well-marked and dry, moisture should be added to the air breathed by the child. Heroin or small doses of opium in the form of codine, or brown mixture may be found useful.

The nervous symptoms, headache and great restlessness, small doses of

phenacetine and at times bromides may be used. If with these conditions the temperature becomes very high, nothing gives such striking results as cold baths or packs, with ice continuously on the head. Early in the disease before the temperature has reached a high point a warm bath given at 90 to 100 degrees may allay the highly irritable condition of the nervous system often observed.

In the opinion of some pediatricians this warm bath helps to bring out the eruption, thereby avoiding that serious calamity of having the rash "strike in," and the necessarily fatal outcome. One author goes even further than this idea and states that "warm drinks are very useful in promoting a normal development of the eruption, and of these hot lemonade and flaxseed tea are, in the writer's opinion, most satisfactory." Holt states that where the eruption appears late, is very faint, or recedes suddenly, that it is due, as a rule, to the presence of a weak heart.

During desquamation a daily warm bath should be given followed by oiling of the skin to facilitate the separation of the fine scales, and prevent their dessemination.

The period of convalescence from measles is probably the most important stage of the disease, as the greatest dangers be in the complications that may arise. All patients at this time should be carefully protected from sudden changes of atmospheric conditions, and an appropriate use of tonic medication will prove of great value.

2. *Rubella*.—The treatment of German measles is practically that of a single febrile affection. Until the diagnosis is positively determined, however, isolation should be complete, and after that individual symptoms and complications treated as they arise. The interest in the malady consists mainly in recognizing it as a separate disease and establishing the differential diagnosis between it and measles and scarlatina.

3. *Scarlatina*.—It is with a great deal of satisfaction, that we recognize the fact, that the place has been reached where we can say, that the treatment of scarlet fever comes under the two heads—symptomatic and specific treatment.

a. *Symptomatic Treatment*.—Our first thought must ever be to see that a proper quarantine is established about out patient, and suitable methods of disinfection provided. In mild attacks practically no medicine will be required other than a throat spray. The patient's body must be carefully care for, and the liability of complications, especially otitis and nephritis, considered.

The diet may consist of milk, broth and fruit juice until the temperature becomes normal when other things may be added.

The patient should be kept in bed for at least a week after the fever has subsided, and the fluid diet continued for three weeks. This is an important matter in the prevention of nephritis. We must recognize the fact that severe and fatal nephritis may follow mild, as well as severe cases, and that during convalescence renal complications are apt to occur even when all danger is apparently passed.

During the first three weeks the urine should be frequently tested for albumin, and afterwards when the child is first allowed to get up, after each change in diet, and after going out. If any albumin is found the child should at once be put back to bed, and on a milk diet until the albumin has disappeared. A patient cannot be considered out of danger from this source until the fifth or sixth week.

During the eruption the itching may be relieved by sponging with a weak carbolic acid solution, by inunctions of carbolized vaseline or the free use of a dusting powder. When the fever and rash have disappeared a warm bath with soap and water should be given

and the body rubbed with some antiseptic ointment, as boric ointment, to aid in the separation of the scales and to disinfect them.

For the fever hydrotherapy is of the greatest value. Scarlet fever was probably the first of the eruptive fevers to be treated in this way. We have record that it was the method employed by Currie in 1798.

It is much safer and more certain than drugs, both to reduce the temperature and for the nervous symptoms. Sponging may be all that is necessary, although in many cases a cold bath or pack is required. I should not employ it to any extent unless the temperature remained at 104° or higher. In the severer cases with high temperature and pronounced delirium and nervous symptoms the patient may be bathed every two hours day and night, with water at 60° or 70°, varying with the age of the child.

Considerable judgment must always be employed in using this method. As contraindications to the cold bath Jurgensen mentions a weak heart not responding to stimulation, dyspnoea, hemorrhages and joint inflammations where the method becomes very painful.

The good effects following the use of water are often very striking in allaying the delirium, reducing the temperature and producing quiet and refreshing sleep.

A warm bath gradually cooled is useful in milder cases and is always well borne. These methods are of so much greater benefit than medicinal antipyretics that I feel like calling special attention to the fact.

When stimulation is required it is probably well to avoid alcohol because of its irritating effect on the kidneys. Digitalis alone or combined with strychnine are probably the best drugs to support the heart if it becomes weak or irregular.

The ears of patients should be examined daily, especially if the throat symp-

toms are severe, bearing in mind that the otitis if present may not be accompanied by pain or tenderness.

As to the throat:

Ruediger (*Journal of the Am. Med. Asso.*, October 13, 1906) states that streptococcus pyogenes are constantly found in great abundance on the tonsils of scarlet fever patients. Lemoine (*Bulletin medical*, 1907) says that the throat is the original source of contagion. Hektoen (*Journal of the Am. Med. Asso.*, April 6, 1907) in 100 cases found the constant presence of streptococcus pyogenes in throat cultures of all cases.

With these facts at hand we must use every effort to keep the throats of our patients as clean as possible, and the question as to whether or not scarlatina is a streptococcus disease becomes one of great interest.

b. *Specific Treatment.*—Gabritschewsky has experimented with large numbers of children at Moscow and has produced a streptococcus vaccine that induces an erythema resembling in every respect that of scarlet fever. The children showed not only the scarlatinal eruption but also sore throat, vomiting, raspberry tongue, fever, etc., all characteristic of scarlet fever. The facts that he has brought out form a basis of support for the serum treatment of the disease, and for the value of vaccination of children to prevent an attack of scarlet fever as well as to forestall the ordinary complications that may arise.

The serum of chief value at present, however, is the Moser scarlet fever serum prepared and used in Escherich's clinic in Vienna.

It is polyvalent serum prepared from a number of definite types of streptococci. Bouillon cultures are made from the blood of children who have died of scarlatina, and are injected into a horse at weekly intervals for several months and its blood serum used.

A. K. Gordon of London states that it is of great value, but that it is essential that an adequate dose be given—

not under 50 c.c. The ordinary anti-streptococcic serum, he says, is useless.

H. W. Cheney sums up the action of Moser's serum as follows: 200 c.c. or 6½ ounces is usually given hypodermically in the skin of the abdomen or back. After the injection the action of the serum begins to manifest itself within 6 to 12 hours. The temperature falls, often to normal, without reaction or symptoms of collapse. The pulse shows a similar change being reduced often from 140 to 100 within 24 hours, and the heart beat becomes stronger and more regular.

The most noticeable change, however, seems to be in the rapid betterment of the child's general condition. He soon presents a fresher appearance, takes notice of his surroundings, sits up and shows a desire for food. The rash, after an early injection, either does not develop fully or fades away more rapidly than usual. The severe nervous symptoms such as delirium, restlessness, prostration or somnolence, disappear.

As with other therapeutic sera, the earlier in the disease the injection is given, the better the results. Cases injected after the third day have a much higher mortality rate than those treated early. A second injection is rarely given. One full dose given at the beginning has been found sufficient in the majority of cases. No bad effects follow the injection except the serum exantham which occurs in 75 per cent. of the cases. This appears from eight to twelve days after the injection, and its frequent occurrence is probably accounted for by the large amount of serum necessary for one dose.

The serum does not prevent the occurrences of nephritis or otitis media, but these appear with less frequency and in a smaller percentage of the cases. While it has not cured all cases, the results from its use are very favorable. The mortality in the Vienna children's hospital was reduced in one year of its use from 14½ per cent. to 8 per cent., and those receiving the serum were usually the severer cases.

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CENTRALIZATION OF POWER—A NECESSITY IN HEALTH WORK AND SANITATION.*

BY DONALD J. FRICK, M.D., LOS ANGELES, CAL.

I have been asked to read a short paper on this subject this morning, as it is of particular importance at this time due to the action of the new health board in changing the titles of health inspectors and in that way placing the responsibility of inspection where it should be—in the hands of the health officer.

Every business, whether it be commercial, banking or municipal, must have one man who is vested with power and is held responsible for every department of that particular business. He carries out the policies of the directors, who in turn are chosen by the stockholders to make their business most profitable—that is, do the most with the least outlay.

Health work and sanitation in a municipality to be most effective should be run exactly on the same business lines, so that the money of the stockholders (the citizens) shall be expended in the most judicious way.

The directors in our corporation are the members of the Health Board, chosen by our representative, the mayor. The Health Board chooses the health officer. The health officer should be in every sense of the word the manager of all branches of health work and sanitation. It is he that is held responsible by the public for any laxness in the carrying out of health laws, he is responsible for the spread of contagious diseases; he is responsible, if food stuffs that are bad are on the market; the Health Board calls him to account if continued complaints are made. This is right and just, if with his responsibility he is given power and help to carry out sanitary and health laws to the best advantage.

A plan that would seem most feasible and practical is that every member of this committee should work to the end that first we might always have on our Health Board the best class of men, and that they should appoint a health officer, who has executive ability, knowledge of sanitation, a wide knowledge of preventive medicine, and humanity. Such a man now holds that position, as is vouched for by his long term of service, and the universal regard he is held in by the medical profession and citizens at large.

It is our duty to give Dr. Powers our support so that he may be placed in the position to give us the best service. Let him be the actual as well as nominal manager of the business of health work. He is worthy of the charge. Let every man in his office be directly under his charge to carry out the work that he directs and let every institution that is doing work along health lines be under his inspection. Then we will have a responsible government.

To bring this before you it would seem well to suggest a correlated scheme that can be discussed and proper resolutions evolved from it.

First—Assistant health officers should be appointed to carry out the orders given them by their head—none appointed for particular duties.

Second—Inspectors should be detailed to do the work that is most needed in the department—no special inspectors.

School Inspection—This is health work in the best sense and is bound to grow from year to year and be the foundation of making the future generations understand better how to live sanitary lives. This should be under the direct control of the health office.

*Read before the Charity Conference Committee of Los Angeles, May 15, 1909.

District nursing, dispensary clinics, hospitals for charitable cases, nursing homes, homes for the poor, young or old—these should be under the supervision and inspection of the health office.

In whatever charity we may be most interested, it would be better for that charity if strict municipal inspection and supervision was carried out in regard to it. Such supervision would weed out the unworthy ones that are either run for private gain or on account of the ignorance of the management are doing harm among the poor rather than good. By the elimination of the badly run charities the good ones would get better support, the poor people would receive what is due them, and there would not be so much misguided work done in the name of charity.

None of us feel that our charity is being done in an ideal way. If any of us do, that is the best sign it is time to stop and allow new blood to take hold.

Inspection would compel us to raise our standards and make us work toward the ideal. The statistics gained by that inspection would be of inestimable value to every person interested in health work.

What has been written here is not pure theory. It has been my pleasure for the last five years to be closely con-

nected with three of the charitable institutions of this city—the Children's Hospital, the Dispensary Clinic of the University of Southern California and the County Hospital, all doing large work in the care of the sick—all run for a time in a haphazard way—doing work, but not the best work, simply because there was no definite head who was given power and held responsible for all the work done within their doors. The Children's Hospital was the first one to see the wisdom of having a head—two years ago the Dispensary Clinic was put in charge of one man. This spring the supervisors of this county saw the wisdom of making the superintendent the absolute manager of the County Hospital. He dictates the policy of the hospital and is held fully responsible by the supervisor for the best care of the patients within the hospital.

In every case the marked advantage has been seen at once—chaos has been displaced by order and the money invested is used to the very best advantage. Is not the time ripe for similar action as regards the health officer of the city of Los Angeles.

You may well claim that this places all the power in the hands of one man, but remember with centralization of power, we can locate responsibility.

THE NEED OF FUMIGATION OF SECOND-HAND CLOTHING AND ARTICLES.*

BY L. M. POWERS, M.D., HEALTH OFFICER OF LOS ANGELES, CALIFORNIA.

MR. PRESIDENT:—We have been making some observations on the manufacture of shoddy and the disposition of old clothing, and especially the danger from mattresses, rugs, etc., made from shoddy manufactured from foul and filthy rags; also the danger from cast-off clothing which has not been fumigated or properly renovated. It is true

the Health Department fumigates the clothing in houses and places where certain contagious or communicable diseases exist, but we fumigate for only certain diseases which are reported in compliance with the law. There are many foul and dirty rags and clothing sent out from filthy rooms and persons which are infected with germs of non-reportable

*Read before the Charity Conference Committee of Los Angeles, May 15, 1906.

diseases, such as venereal diseases and the like, that need cleansing, and fumigations alone should not be relied upon for other means, such as washing and disinfection by boiling, are more effective.

We want to secure the passage of an ordinance which will make it obligatory that all old clothing be properly renovated before sold for use; and also that all rags be cleansed and disinfected before being made into shoddy, etc. Now, if we can have some establishment installed that will demonstrate and set an example to others our task will be much lighter, as some of the ladies of this organization have suggested that a station be established by the Associated Charities where clothing can be received, washed or fumigated, and repaired or converted into rag mats and sold at a trifling cost to cover the expense of handling, for giving pauperizes and discourages self-respect.

With both a supply and demand on hand with a population of over 300,000 this could easily become a mammoth enterprise. Employment could thus be given to elderly men and women who for various reason cannot enter domestic service, but whose cases are truly pathetic. Help could thus be brought to the over-worked mother, and to the father who must take mother's place. The influence that clean, well mended garments would have on the young is not to be overlooked.

I heartily indorse this movement which means so much to the health of our public.

NEURASTHENIA.

McCreary stated that in his cases he had found large amounts of indican and phenol in the urine, and asks if the intestinal symptoms in these cases were a cause or an effect of the neurasthenia. Dr. E. D. Fisher thought them secondary.

HOT AND COLD WATER IN EYE DISEASES.

Nance states that the principal points in the consideration of this subject may be thus briefly summarized:

1. Heat and cold are best applied to the eye by moist pads. They are more efficacious when employed in this manner than by means of the coil or bladder, in that their action is more penetrating, and their effect is more germicidal.

2. The application of heat is indicated in degenerative corneal processes—interstitial and phlyctenular keratitis, corneal ulcers, pannus, infected corneal wounds, hyphemia, hypopyon, suppurative panophthalmitis, in iritis and cyclitis, in muscular spasm, and in contusion and ecchymosis of the eyelids ("black-eye") to hasten absorption of extravasated blood.

3. The applications should be of the highest temperature the patient can endure, viz., 110° to 135° F.

4. They should be employed for a period of fifteen minutes, and repeated at intervals of two or three hours, for many hours.

5. Cold is indicated in hyperemia and inflammation of the conjunctiva. In purulent conjunctivitis it is the remedy *par excellence*. In traumatism, especially those of the iris and lens, and in the early treatment of contusions of the lids, its employment is of value.

6. In purulent conjunctivitis, iced applications may be continuously used for many hours so long as the cornea remains unimpaired, in which instance they are positively contra-indicated.

7. Hot applications greatly assist the rapid absorption of various medicaments employed in ophthalmic practice, and when used for this purpose should immediately precede the instillation of such solutions.

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EDITORIAL

MEDICAL DEFENSE FOR MEMBERS OF THE STATE MEDICAL ASSOCIATION.

At the San Jose meeting of the Council of the Medical Society of the State of California, the matter of defense by the State Society in malpractice suits against its members was discussed, and will be made the subject of a special meeting later on.

The sentiment for such action was decided on the part of the members of the council, the only point at issue being the manner in which the funds should be raised for the proper maintenance of such defense.

It was hoped that Dr. Fowler of Bakersfield would bring in a report for his special committee, but illness prevented him from doing so.

We suggested in the council that the Los Angeles Association might lend its medical defense fund to the State So-

ciety in order to get the work started at once, and then, at the Sacramento meeting next year, a definite plan could be mapped out for a permanent fund.

We believe, that if the dues of the county associations are raised \$1 per year, the sum so raised, if turned over to the State medical defense fund would be sufficient to maintain the work. In an emergency, the council could always raise extra money, and the succeeding annual meeting could arrange for its proper payment.

If \$1 a year is set aside for such a fund, this money could not of course be used for any other purpose. Such a fund could be under the supervision of the council (which perhaps would be as wise a policy as any, as the councilor from each district would thus know all the details of the work, both in general and as applied to his district,) or to a

committee from the council or to a board of trustees, say of five, of which the president and secretary of the council should be members.

In case a malpractice suit was entered against a member of the society, such a member would inform the secretary of his county society at once, who, in turn would inform the County Medical Defense Committee, the councilor of the district and the secretary of the State society, so that these persons, working through the attorneys of the society and district could keep in touch with all steps in the case.

It should be necessary for the County Committee to certify that the member sued, in its opinion, was not guilty of criminal negligence, etc.

It costs at the present time \$10 to \$15 a year for the minimum insurance or malpractice policy.

Granted our county association dues were \$5 to \$10 a year under this new arrangement, these dues would give us not only as good or better malpractice insurance for less money, but at the same time membership in our county and State associations.

Our State association has at the present time almost two thousand members. It should have at least five hundred more. Medical defense would make many of the men, who through indifference or other causes have not affiliated with us thus far, come in, and by their membership still further increase the influence of the county associations and the State society.

By all means let us have medical defense to add to the advantages of membership in the State Medical Society.

A medical defense fund of definite amount with the ability to raise all additional funds necessary, and the united professional support of the members of the county and State societies would exercise a most deterrent influence on the scheming patients and shyster lawyers who from time to time enter malpractice suits largely for the purposes of blackmail.

We believe the time is ripe for action on the subject of medical defense. Those interested and who have suggestions to offer, should write the State councilor from their district or the secretary of the State society. K.

EIGHTEENTH ANNUAL SESSION OF THE ARIZONA MEDICAL ASSOCIATION.

The 18th Annual Session of the Arizona Medical Association which met in Prescott May 19th to 21st, 1909, was well attended by the medical fraternity of the Territory. It was said to have been the most effective, enthusiastic and interesting of gatherings and in attendance outnumbered any meeting except those recently held in Phoenix where naturally it is easier for a greater number to attend. Yet, to every state society, strength, growth and influence come by co-operation and by the men gathering together each year at different places where new faces are seen, and the society's force is felt. Thus the meeting at Prescott seemed to infuse some new life and thought into the Society. Besides all visitors had the opportunity of a few days' welcome change to an altitude of 5000 feet among the pines where the air and sun-

shine were both stimulating and invigorating.

The papers were of high grade and showed good scientific work. If one were asked to express the prevailing thought and atmosphere of the meeting, he should say it clearly showed a serious consideration of each subject presented with the close attention of the members.

The West has always been known for its hospitality and Prescott proved no exception to the rule. The guests from California were most warmly received, hospitably entertained and shown every possible attention, and were each made on the moment of arrival to feel "at home." They also gained much inspiration and help by their contact with the honest professional colleagues of the neighboring territory. The Governor of the Territory and the Mayor of Prescott added much to the meetings by their presence and evident interest.

Arizona has, with our modern medicine and the present knowledge of preventing disease, an opportunity to make and enforce laws for the protection of the public health that has no parallel in our country, and she may now on the eve of statehood, so frame her medical laws as to make preventive medicine most effective. She is fortunate too in having a wise, broad-gauge man at the helm, who sees the advantage of assistance to his land and people from an unselfish profession.

Governor R. E. Sloan is progressive and stands ready to further any good and just humanitarian object; in him the medical profession has a friend and

co-laborer for preventing disease, but as he truly said at the meeting, the doctors through organization must lead and show the way. Arizona is alive to such facts, with a united medical and legal profession, and good results must follow with this encouragement.

The resolutions of the Association given on another page of this journal, in regard to public health problems, compulsory vaccination and revaccination, compulsory registration of contagious and infectious diseases and the milk supply, were unanimously welcomed and carried. It is to be hoped that these and others as good for the future of Arizona may become state laws. This journal wishes continued success to the Arizona Medical Association.

W. JARVIS BARLOW, M.D.

THE LAST CLASS OF THE COLLEGE OF MEDICINE, U.S.C.

In 1885, through the efforts of Dr. J. P. Widney and his colleagues, the medical department of the University of Southern California was organized, and since twenty-one classes have been graduated, the last receiving its diploma on June 17th.

This is the last class to be graduated by the College of Medicine under the charter of the University of Southern California, its career from this time on, being a part of the State University of California.

The reasons for this change have been mentioned in previous issues of *THE PRACTITIONER*. The object of the transfer was to give to Los Angeles, the large financial backing and other influence necessary to the development

of a strong clinical school of medicine.

The property of the college, of a value of more than \$100,000, has already been transferred to the Board of Regents of the University of California and beginning this Fall, students of the Freshman Class will take their first year's work at Berkeley, the second, third and fourth year courses being given at Los Angeles.

Next year (1910) and thereafter only third and fourth year courses will be given at Los Angeles, all first and second year work being given at Berkeley.

During the coming session freshman students will be admitted on a high school diploma provided it includes certain language and science credits.

Next year and thereafter, two years of college work will be required for entrance.

The year just closed, the last of the College of Medicine, as the medical department of the University of Southern California, was a most successful one, the joint efforts of Dean and faculty having resulted in what gave every evidence of being real advance in scholastic standards and work on the part of the students.

The list of graduates, with prizes and internships are as given below. THE PRACTITIONER welcomes these young men and women into the profession and trusts they may give as excellent account of themselves and their alma mater as have their predecessors.

The list of graduates includes Doctors Carlton Stewart Allen, Caesar George Cahen, James Rae Cowan, Rex Dowler Duncan, Melvin Ellis, Don Perley Flagg, Harry G. Ford, Walter Bradley Hill, Albert W. Hiller, Wil-

liam J. Hutchinson, Mary C. Jaquette, Percival Priestly Osburn, Lulu Hunt Peters, Lewis D. Remington, Alfred James Scott, Jr., Vinton Ray Townsend, Thomas Henry Ulyot, Belle Jessie Wood-Comstock.

The Barlow sophomore prize of fifty dollars for excellence in the work of the freshman and sophomore years in the College of Medicine was awarded to J. W. Nevius, Leon Shulman receiving honorable mention; the Barlow senior prize of one hundred dollars for excellence in the work of the junior and senior years was awarded to A. J. Scott; W. B. Hill received honorable mention, and Mrs. Belle Jessie Comstock received special honorary mention for obtaining the highest scholarship in the senior examinations.

The appointments of internships were: Los Angeles County Hospital, Carleton S. Allen, Harry G. Ford, Albert W. Hiller, Vinton R. Townsend; to the California Hospital, James Rae Cowan, Melvin Ellis; to the Pottenger Sanatorium, Walter Bradley Hill; to the Women's and Children's Hospital of San Francisco, Miss Mary C. Jaquette.

THE NEW CALIFORNIA STATE BOARD OF MEDICAL EX- AMINERS.

The following are the names of the medical men appointed by Governor Gillette on the State Board of Medical Examiners:

W. W. Roblee, M.D., Riverside.
J. Henry Barbat, M.D., San Francisco.

Charles L. Tisdale (H.) M.D., Alameda.

Charles Clark (E.) M.D., San Francisco.

W. M. Mason (E.) M.D., Lodi.

W. H. Stiles (H.) M.D., San Bernardino.

D. L. Tasker (O.) D.O., Los Angeles.

W. L. Vanderburg (O.) D.O., San Francisco.

G. F. Reinhardt, M.D., Berkeley.

Walter Lindley, M.D., Los Angeles.

F. R. Burnham, M.D., San Diego.

At its meeting of organization in May, all members were present except Dr. Lindley of Los Angeles, who is on a European trip.

The board organized by electing as president, Dr. G. F. Reinhardt of Berkeley, and as secretary, Dr. C. L. Tisdale of Alameda.

Business of great importance was transacted concerning the policy which this board will follow regarding examinations.

It was voted to hold a four instead of a three-day examination, in order to stop the criticism of rush methods.

Also that every member should be present from start to finish and mark his papers then and there, as well as watch the students himself, if possible, during his own examination.

Furthermore, it was agreed that all the examiners should meet on the morning of the day preceding the first examination in order to submit their questions to the general review and criticism of the board, so as to do away with the criticism and newspaper notoriety about unfair, impractical and catch questions.

The programme of the order and hours of the examinations is also to

be announced before hand in printed notices when applicants send in their credentials, so that applicants may not suffer the tortures of the damned, in wondering about what will come next.

We are personally much pleased with these innovations, the need of several of which have been emphasized in the Practitioner on a number of occasions, when in times past we felt it necessary to criticise previous boards for lack of tact and fairness.

We are convinced that the well-known integrity of the present board and the adoption of these fair and common-sense rules will go a long way toward restoring medical and lay confidence in the California State Board of Medical Examiners and the object for which it is appointed—the protection of the people of California from ignorant, incompetent or unscrupulous persons who would hold themselves before the public as competent practitioners of medicine and surgery.

The board intends to give fair examinations and intends also to promptly expell any persons guilty of cribbing or other cheating.

We would suggest, if it has not yet been done, that explicit and plain information governing the rules and methods of the board be drawn up and sent to every applicant, so that each individual may fully understand both his rights and obligations.

This would be a simple courtesy and justice, and would also help prevent unfavorable criticism of the board and its methods.

The foolish, and we believe we may assert with justice, illogical and narrow

methods in treating applicants in the past, had a tremendous influence in creating public sentiment against the board and in creating an unsavory reputation that extended from coast to coast.

Let us have no more of it. No real good resulted therefrom. Let us be broad-gauge men and show by our rules and our actions, our honesty of purpose in seeking a State medical law and its honest enforcement.

We believe the profession and people of California owe the new board real gratitude and appreciation for the obligations its members are putting themselves under in order that none of its actions may be called into question from the standpoint of fairness or courtesy.

We believe further, that this board will do much to bring about a better condition of affairs in the profession of California.

K.

RECIPROCITY AMONG STATE MEDICAL BOARDS.

In the correspondence column of this issue we print letter from Dr. John C. King of Banning, California, regarding state medical board reciprocity, and we commend it to the careful perusal and consideration of our readers.

We believe in the general views outlined by Dr. King and in his contention that reciprocity based on different standards is both unfair to the individuals who submit themselves through choice or necessity to the tests of the higher standard state, and to medical education and the profession at large, because reciprocity based on unfair or subterfuge methods would

greatly lower the tone of medical teaching and professional standards.

It is and has been our belief that at the present time, there are few states that examine with what may be termed really equal standards, and Dr. King, from his large experience and from the facts which he presents, fully establishes this fact. Consequently reciprocity at this time would mean putting a premium on unfairness and subterfuge.

Here in California we have heard much of the need of reciprocity, largely we believe because some of the dominating members of past California examining boards, by their ultra-theoretical standards and obstinacy and lack of wisdom (synonymous with lack of common sense) played no inconsiderable part in making not only the laity but many members of the profession, at home and abroad, believe that they were inspired by unfair or even dishonest motives.

We rejoice that the new medical examining board of California gives such great promise of better things and in this connection bespeak for it the good will of practitioners of all schools.

And in regard to reciprocity—let us bide our time until we are more united on a definite policy. In this way we will, in good time, learn the best road to follow and the best plan to adopt.

HONORS FOR SOUTHERN CALIFORNIA PHYSICIANS.

Press dispatches state that Dr. Stanley P. Black, Professor of Pathology in the Los Angeles Department, College of Medicine of the University of California, has been elected vice-presi-

dent of the American Medical Association.

Dr. J. H. McBride, formerly dean and Professor of Nervous Diseases of the same institution, was elected president of the American Academy of Medicine at its recent meeting.

Dr. Rose Bullard, clinical instructor

in gynecology, has been elected president of the Alpha Epsilon Iota Medical Fraternity.

We have not had the full reports of the eastern meetings, but with such a beginning would not be surprised at any additional honors which might come this way.

EDITORIAL NOTES

Drs. H. H. Sherk and Charles Lee King, of Pasadena, attended the meeting of the American Medical Association.

Dr. L. P. Kaull, formerly of Jerome, Arizona, is now permanently located in the Union Trust Building, Los Angeles, California.

Dr. F. C. E. Mattison of Pasadena recently left for the East, where he was joined by his daughter, Miss Bess Mattison. They will spend the summer in Europe.

Dr. and Mrs. Rexwald Brown of Santa Barbara left last month for the East and will not be back until July 1. The doctor is to attend the surgical clinics of Chicago and New York, and while away will be present at two medical associations.

Dr. J. I. Clark has been appointed by Gov. Gillett a member of the Board of Managers of the Southern California State Hospital at Patton. He will fill the vacancy caused by the expiration of the term of Horace McPhee of Santa Ana. Dr. Clark, who is a Republican, is Santa Ana's Health Officer.

Dr. William Louis Weber has had the honor of taking second place at the

examinations in Philadelphia, competing with a large number of medical students from nearly every medical school of note in the United States. That's not so bad for a Huntington Park lad.—*Huntington Park Signal*.

Dr. J. G. Ham will be City Health Officer, San Bernardino, at a salary of \$80 per month, this to cover all remuneration for professional services in that capacity, and there are to be no additional physicians employed in the work, unless extraordinary conditions arise.

In connection with the dissolution of the firm of Drs. Parker & Roblee, as announced on May 27th, comes the announcement of the formation of a partnership between Drs. C. Van Zwalenburg and Dr. Roblee. These well-known physicians will have their offices in the Glenwood Block, of Riverside, in the quarters now occupied by Dr. Roblee, which are being remodeled. It is understood that the formation of the new partnership will in no way be allowed to interfere with the private practice of either physician.

The twentieth anniversary of the founding of the Orange County Medical Society was celebrated on June 2nd with a banquet. The physicians and

their guests present numbered thirty-eight. Dr. John Wehrly, the retiring president, delivered the annual address. His subject was "Isms and Fads." The officers installed for the year were: President, Dr. J. L. Beebe, Anaheim; Vice-President, Dr. C. C. Violet; Secretary, Dr. Ida Parker, Orange; Treasurer, Dr. H. S. Gordon, Santa Ana; Librarian, Dr. C. D. Ball, Santa Ana. Dr. J. L. Dryer read a history of the society.

At a special meeting of the Los Angeles Board of Health, Dr. P. V. K. Johnson was appointed city physician at \$100 per month salary. This is a new position, created by an ordinance recently passed by the Council, and is one of the pet projects for better civic health proposed by the new Health Board. While the duties of the office are not expected to occupy all the time of the physician, he will be on call at any time the Health Officer may demand. His chief work will be the performance of medical service among the poor of the city who are unable to secure a good physician.

That the place of the "old school" doctor who at once was physician, adviser, friend and confessor to his patients, has been taken by the trained nurse in the modernized profession of medicine, was the contention made by Dr. W. A. Evans, Health Commissioner of Chicago, in an address to the Sherman Hospital graduating nurses. "The modern physician is an evolution of the old-time doctor," said Dr. Evans. "He has lost a sympathetic element which characterized the old-time doctor, and the nurse has taken his place. Sociological conditions in our municipalities are responsible for disease. With proper sociological conditions disease should be wiped out in our large cities."

A feature of the session of the Arizona Medical Association was the

reading by Dr. Barlow, a well-known Los Angeles practitioner, a paper on public health, written by himself. Dr. Barlow paid a glowing tribute to the Territory, displaying great enthusiasm over existing health conditions in this section. He explained that the territory is having an opportunity in this regard such as has never been presented to any other State in the Union. Owing to the fact that the Territory in a sense is a new section, its health officers have the benefit of the knowledge and systematized work of the health departments of other States to begin on. It is his belief that Arizona should maintain a high standard in health statistics in the future.—*Tucson Star*.

Miss Susan Summers, registrar of the Official Nurses' Directory of California, Los Angeles County Branch, entertained with a reception in compliment to the registered nurses of the local directory at her home, 1303 Winfield street, on May 25th. About sixty nurses and physicians attended. Miss Summers was assisted by her sister, Miss Maude Summers, and Mrs. F. B. Beckett. The Nurses' Directory is an organization existing for the purpose of bringing the trained nurses of the county in closer touch with each other and to enable physicians and others to secure the services of efficient and capable nurses quickly and when most needed. The reception was an informal affair, and nearly all nurses registered at the directory who were not on duty at the time were present.

Eminent physicians, at the recent meeting of the American Academy of Medicine, advocated "contract practice" by physicians as a solution of the problem of providing proper attention for wage-earners at small cost. The plan presented favors small monthly payments by clients of the contract phy-

sician, who is expected to attend them in case of illness without extra charge. Dr. L. Benedict of Buffalo claimed that, under the present system, the poor, unable to pay doctors' bills, often delayed calling a physician until the disease was beyond easy cure. He said the contract physician plan would insure the doctors against loss in unpaid bills and guarantee the young physician a living income.

Dr. J. A. McGarry, of Los Angeles, has been appointed pension examining surgeon to succeed Dr. R. G. Taylor, who very recently resigned. He was recommended by Congressman James McLachlan.

That danger lurks in the transportation of bodies of those who have died from infectious disease was declared at the recent session of the annual meeting of the Conference of the State and Provincial Boards of Health of North America. The committee appointed to report on the subject found fault with the present system of shipping bodies from one state into another, and pointed out the necessity for changes in the practice. A resolution offered by Dr. Woodward, health officer of the District of Columbia, declared that the interstate shipment of bodies was a matter within the control of the federal government and should be regulated by congress, and was adopted. A committee was appointed to devise means of exterminating rats. The establishment by congress of a hospital within the limits of the continental United States for the care and treatment of lepers and the study of that disease was urged in a resolution adopted by the conference.

"If I were autocrat of the world," said Dr. H. W. Wiley, food expert of the Department of Agriculture in Washington, while in London recently, "I might aspire to discover the secret of everlasting physical life, for then it would be possible for me to select the

people who should benefit by my discovery. Since this selection is denied me, I do not want the secret known, for it might get out and the thought of some people living forever is an awful thought. No, we chemists must admit," continued Dr. Wiley, who has just concluded his duties in connection with the International Congress of Applied Chemistry, "that we are aware of no way of renewing the tissues so as to perpetuate the living body. However, it is possible to make the body better while it lasts, so as to have sounder tissues, more energy, a brighter mind, to retard the process of decay and to attain a higher maximum of development."

A dispatch from Philadelphia states that Dr. W. W. Keen, the noted specialist, who presided at the sessions of the one hundred and sixty-sixth annual convention of the American Philosophical Society, startled his hearers when he suggested that members bequeath their brains to the society for scientific purposes. His suggestion followed an address by Prof. Burt G. Wilder of Cornell University, in which he exhibited for comparison the brains of a negro janitor and of a New York politician. Dr. Keen's suggestion caused an interesting debate, but no member showed a disposition to accept it in his own case. Prof. Wilde commented favorably on the brain of the negro, as compared with that of the politician, though he did not disclose the identity of the latter. He also displayed the brains of two educated white men and of two ignorant negroes to illustrate their similarity. Dr. Anthony Spitzka, another brain specialist, however, showed that the brain of a negro is always smaller than that of a white man. Both speakers deplored the difficulty of obtaining the brains of highly educated and normal persons for scientific purposes.

A dispatch from Berlin states that the medical world of Germany is greatly excited over revelations of the "graft" in its most eminent quarter—the famous Berlin specialist fraternity. Prof. Senator, the venerable president of the Berlin Medical Society, is being charged with bribing hotel porters and others to direct wealthy patients, principally foreigners, to his clinics. Other specialists, including men like Prof. Von Leyden, the famous head of the German National Cancer Research Commission, have also been mentioned in connection with the affair. At Wednesday's meeting of the Berlin Medical Society, Prof. Senator resigned the presidential office, pending investigation of the charges against him by a court of honor. He claims that he has never been guilty of bestowing gratuities except upon the head of a certain Russian institute for medical consultations, who was accustomed to act as interpreter for Russian patients. Some hotel porters who besieged the professor for "commissions" were given money, he says, as the simplest way of getting rid of their importunities. These charges of "brokerage in patients," which are maintained by Drs. Moll and Friedmann, two reputable physicians of Berlin, will be thoroughly investigated by the medical societies, regardless of reputations.

As a result of an attempted operation on a "spine" or boney growth in the nose, Dr. Oscar N. Taylor, a practitioner in medicine, and widely known as coach of the University football team for two seasons, passed away at the Lane Hospital on May 23rd, after a prolonged battle against death. His untimely taking off was due to infection that set in after the operation was performed. Some weeks ago he discovered a "spine" growing on the boney portion of the nose. He felt competent to operate on himself by reason of his

being a specialist in diseases of the nose and throat. He operated successfully on two occasions, but the passage was not entirely free. He then determined on another operation and prepared his instruments. Not being able to see where he was placing his chisel caused him to tap too hard, and steel pierced the base of the brain. Appreciating his serious condition, the doctor called in medical assistance. The wound became infected with the strepto-coccus, most virulently active of bacilli, and a case of cerebro spinal meningitis resulted. The death of Dr. Taylor will be sincerely regretted by the wearers of the blue and gold. He was a graduate of the University of California, of the class of '94, and won fame as being one of the best fullbacks the intercollegiate game developed in the West.

After July 1 it will be possible for all physicians in Southern California to have laboratory tests made to discover diphtheria, typhoid and tuberculosis cases free in Los Angeles and receive comparatively immediate report on them. This is made possible by the determination of the State Board of Health at its last meeting to establish a State Laboratory in Los Angeles for these tests for the benefit of all of Southern California. Heretofore, because of a lack of funds, only one such laboratory has been maintained in the State, and that has been at the University of California. Because of the distance, the difficulty in sending specimens and the time required to obtain a report, the laboratory was of little value to Southern California, and the physicians in the smaller cities and in the country have had comparatively few tests made. The Los Angeles Board of Health maintains a bacteriological laboratory, but physicians in other counties of the south either had to pay for having bacteriological tests made or send their specimens to the University. The

new appropriation for State health is sufficient to provide for an additional laboratory, and the State Board of Health has arranged for Dr. Stanley P. Black, professor of pathology in the College of Medicine, U. S. C., to do the work for the State at his laboratory in the Union Trust Building. It is alleged that many cases of these diseases cannot be recognized in the preliminary stages except by a bacteriological test, and it is expected that the new arrangement will enable physicians in the country and smaller cities to discover and suppress epidemics right at the start. Later, laboratory tests may be made for other diseases, but at present they will be confined to the three diseases named.

There were things doing at the University Club's monthly dinner last month, aside from the fact that Dr. John R. Haynes read a most informing and interesting paper, in view of recent municipal happenings, on the "Origin and Future of the Recall, Initiative and Referendum." But prior to the appearance of the "speaker of the evening," Dr. Frank D. Bullard was the cynosure of all eyes—and wits. Dr. Frank has a brand new toupee, and the disappearance of the well-known bald pate, that has won for its owner the sobriquet of "Mr. Pickwick," was the subject of much merriment at Frank's expense, between the dinner courses. Here is one of the skits aimed at the good-natured doctor:

Toupee, or not toupee; that is the question;

Whether 'tis nobler in the mind to suffer

The drafty airs that play upon my pate
Or with a purchased tuft adorn my poll
And so avert the trouble? A wig—a
toppiece,

But that; and by a wig, to say I end
The menace, and the thousand natural
shocks

My caput's heir to—'tis a consummation

Devoutly to be wished.—A wig,—a top-
piece—

A wig! an artificial lock! ay, there's
the rub,

For with that hocus hair what jolts
may come

When from the ribald tongue my soul
recoils

To give me pause. There's the respect
That my baldheaded front so long has
won!

Yet who would bear the Santa Ana
winds,

The searching sun, the Sutherland sis-
ters' scorn,

The pangs that sear my soul, the refer-
ences

To billiard balls, by insolent folk ad-
dressed!

With patient merit I have borne it all,
When, easily, I might long since have
done

That which is now achieved. Who
would fardels bear,

To grunt and sweat under the wealth
of locks,

But that the dread of hearing that old
cry,

"Go up, thou baldhead!" from the vul-
gar herd

Affront my ears, when, in my walks
abroad

I penetrate new country, where, un-
known,

My lengthened brow's the target for the
fool.

But, but for this I'd bear the ills I have
Than fly to others that I know not of.

So, my ungarnished skull, my con-
science pricks,

And arrant cowardice, alas, results.

And thus the native smoothness of my
sconce

Is sicklied o'er with the pale cast of
hair

That leaves me unexposed. O, capillose
delight,

With you on top currents are turned
away
And lose their power to smite. Soft
you, now!

The fair sex smiles entranced! I see,
I see,
Youth has returned once more with
my toupee!

SOCIETY PROCEEDINGS

THE ARIZONA MEDICAL ASSOCIATION.

Minutes of the House of Delegates at the Eighteenth Annual Session, Held at Prescott, May 19 and 20, 1909.

First session called to order at 9:45 a.m., Wednesday, May 19th, by First Vice-President John W. Foss of Phoenix.

Roll call by the Secretary showed eight members of the House present: Acting President John W. Foss, Phoenix; Secretary John W. Flinn, Prescott; Councillors Otto E. Plath, Phoenix; John K. McDonnell, Crown King.

Delegates, Cochise County Society, William D. Cutter, Bisbee; Maricopa County Society, Ancil Martin, Phoenix; Pima County Society, William V. Whitmore, Tucson; Yavapai County Society, John B. McNally, Prescott.

The minutes of the last annual session were read and approved.

The report of the Secretary was then read and on motion of McDonnell was referred to a committee, composed of Whitmore, Plath and McNally, who were instructed to report on the recommendations contained in it.

The House adjourned to meet at the call of the Secretary.

SECOND SESSION.

Called to order at 12:15 p.m., Wednesday, May 19th, by Acting President Foss. All the registered members of the House were present.

The Treasurer's report was read and referred to the Council to audit.

The report of the Committee on Public Policy and Legislation was read by the chairman, C. E. Yount of Prescott, and was adopted.

The report of the Council on the publication of the Proceedings and other items of interest in THE SOUTHERN CALIFORNIA PRACTITIONER, was read and adopted. The Council was instructed to continue the present arrangement with THE PRACTITIONER for another year and to accept the offer contained in a letter from the publisher of that journal to the Secretary of this Association dated March 17th, 1909.

A committee on Necrology was appointed, composed of Whitmore, Martin and E. B. Ketcherside.

The House then adjourned to meet at the call of the Secretary.

THIRD SESSION.

Called to order at 12:20 p.m., Thursday, May 20th, by Acting President Foss. All the registered members of the House were present.

It was moved by McNally and seconded by Cutter that the Secretaries of the several county societies in the Territory be requested to arrange for four public meetings in each county during the year, to acquaint the public more fully in regard to matters of importance relating to Public Health. Motion was adopted by unanimous vote.

It was moved by Martin, seconded by Whitmore and carried unanimously that "It is the sense of this Association that 'An Act to Protect Public Health' of the session laws of 1903, Arizona Legislature so far as it relates to public health is admirably suited to our conditions in Arizona and should

not be altered or amended for some years to come."

It was moved by Flinn, seconded by McDonnell and carried unanimously that lines four, five and part of six of article IX, section 2, of the Constitution of the Association, be amended to read as follows: "So that after the first year ONE councillor shall be elected annually to serve three years;" that sections 1 and 2 of chapter V of the by-laws of the Association be annulled and that section 3 of this chapter be numbered section 1. The house then adjourned to meet at 2 p.m.

FOURTH SESSION.

Called to order at 2:15 p.m., Thursday, May 20th, by Acting President Foss. All the registered members of the House were present.

The committee appointed to consider the Secretary's report recommended that this report be adopted and that the attention of the members of the Association and the officers and members of the component county societies be drawn to the recommendations contained in the Secretary's report and that they be asked to carry out these recommendations. This was adopted unanimously.

The Council reported that it had carefully examined Treasurer's report and compared the items of disbursements with the orders and receipts and found everything very correct. The report was adopted.

The report of the committee on Necrology was received and adopted.

The following officers were then elected for the year 1909-1910:

President, R. N. Looney, Prescott.

First Vice-President, John W. Foss, Phoenix.

Second Vice-President, Wm. D. Cutter, Bisbee.

Third Vice-President, E. S. Godfrey, Tucson.

Secretary, John W. Flinn, Prescott.

Treasurer, E. B. Ketcherside, Yuma.

Essayist, W. Warner Watkins, Phoenix.

Councillor, John K. McDonnell, Prescott.

Place of meeting, Phoenix, April 20 and 21, 1910.

The President then appointed the following committees:

Committee on Scientific Work, A. L. Gustetter, Nogales; C. T. Sturgeon, Globe; the Secretary (ex officio).

Committee on Public Policy and Legislation, H. W. Fenner, Tucson; W. D. Cutter, Bisbee; Ancil Martin, Phoenix; the President, ex-officio; the Secretary, ex-officio.

The House then adjourned sine die.

JOHN W. FLINN,
Secretary.

REPORT OF THE SECRETARY.

To the President and Members of the House of Delegates of the Arizona Medical Association:

GENTLEMEN:—

I beg to submit herewith the Annual Report of the Secretary for the year 1908-1909.

SOCIETY PROCEEDINGS.

The first work of the Secretary was arranging for the publication of the proceedings of the 1908 Session of the Association, and the papers read at that meeting.

After considerable correspondence, the Secretary with the consent of the other members of the Council, completed arrangements with THE SOUTHERN CALIFORNIA PRACTITIONER, whereby that journal published the proceedings and papers of the Association in its different numbers, under the editorship of the Secretary of the Association, who acted as an assistant editor of the journal.

THE PRACTITIONER also published, from month to month, local items of interest to the members of the Association, and at different times, editorial

and other announcements relating directly to the work of the Association.

THE PRACTITIONER was supplied to every member, at the Association's expense, and was, to a certain extent, the mouthpiece of the profession in Arizona.

We believe the arrangement has been a fairly satisfactory one, and would recommend that this, or some similar arrangement, be continued until the Association is in a position to publish at least a second-class journal of its own.

We would further recommend that the Secretary of each county medical society in the Territory be named the reporter of that county, and be asked to forward local items of interest to the assistant editor each month.

THE PRACTITIONER will gladly publish the views of any member of this Association on any question of general interest to the profession, and we would recommend that an effort be made to make THE PRACTITIONER, in fact, the mouthpiece of the Medical Profession of Arizona.

Attached to this report is a letter from the publisher of THE PRACTITIONER, stating on what terms he is willing to continue the arrangement. We would recommend that his offer be accepted.

MEMBERSHIP.

On July 10th, 1908, when the books of the Association were turned over to the present Secretary, the Association had sixty-eight bona fide members: The Maricopa County Medical Society, 23; the Pima County Medical Society, 19; the Yavapai County Medical Society, 26.

On July 13th the Secretary of the Santa Cruz Medical Society reported seven members, making a total membership of 75.

Although the Secretary of the Cochise County Medical Society sent, early in August, a tentative report of 38 probable members, it was not until March

and April of 1909, that any members of the Cochise County Medical Society became bona fide members of this Association by the payment of their dues by the Secretary of their County Medical Society. In these months 33 members of this society became members of the Association for 1908, swelling the 1908 membership, with one new member from Maricopa county, and five from Yavapai county, to 114 in all.

The 1909 membership to date is 120 members, made up as follows: Cochise County Medical Society, 19; Pima County Medical Society, 20; Maricopa County Medical Society, 45; Santa Cruz County Medical Society, 9; Yavapai County Medical Society, 27.

Good work has been done in all the counties. Special mention should be made of Francis H. Redewill, Secretary of the Maricopa County Medical Society, who has doubled the membership of his society in the past year.

Still, the membership embraces less than three-fourths of the physicians of the Territory and an effort should be made by all County Secretaries to induce those of the other one-fourth who are eligible, to become members. The Secretary should recommend that each County Secretary should send at once to the Association the names of the physicians in his county who are not members of his society, and the reasons why each does not join.

As the County Society is the unit of organization of the Medical Profession of the United States, your Secretary would strongly recommend that every encouragement be offered by this Association to the stimulation of active work in every one of its component county societies.

A post-graduate course of study, with either weekly or fortnightly meetings should be followed by every County Society.

As a large measure of success of the County Society depends upon the work of its secretary, we would suggest that

every effort be made to stimulate and increase his enthusiasm and interest in his work.

The County Societies of this Territory are to be congratulated upon the character of their secretaries. There is not a County Secretary in Arizona today, whose secretary is not alive to the interest of his society, and working overtime to forward its interest, and to further increase its efficiency. We would recommend that every county in the Territory send its Secretary to each annual meeting of this Association at the County Society's expense; and that a Territorial Society of County Secretaries be formed, to meet during the annual session of this Association, and discuss ways and means of increasing the usefulness and efficiency of the County Societies in the Territory.

Your Secretary is sorry to have to report that there is still no county society in either Graham or Gila counties. We believe that each of these counties should have a society, and that the Council of this Association should take decided steps to organize these societies.

The Secretary wishes to express his thanks to the other officers of the Association for their universal courtesy and assistance in the work: To Drs. Ancil Martin and Francis H. Redewill of Phoenix for material for THE PRACTITIONER; and to the officers and members of the Yavapai County Medical Society for valuable suggestions and assistance in the work of the Association, and more especially in the work of the Committee on Public Policy and Legislation.

All of which is respectfully submitted.

JOHN W. FLINN, Secretary.

TREASURER'S REPORT 1908-1909.

CASH RECEIVED.

1908

March 16—From Dr. Palmer,
former Treasurer\$ 71.95

July 20—From Dr. Foss, former Secretary	155.50
July 20—From Dr. Flinn, Secretary (Santa Cruz County) ..	14.00
Oct. 16—From Dr. Flinn, Secretary (Maricopa County)	2.00
Oct. 16—From Dr. Flinn, Secretary (Yavapai County)	10.00
1909.	
Feb. 9—From Dr. Flinn, Secretary (Maricopa County)	40.00
Feb. 9—From Dr. Flinn, Secretary (Yavapai County)	30.00
March 9—From Dr. Flinn, Secretary (Maricopa County) ..	10.00
March 9—From Dr. Flinn, Secretary (Cochise County)	30.00
April 28—From Dr. Flinn, Secretary (Cochise County) ...	36.00
May 11—From Dr. Flinn, Secretary (Maricopa County)	40.00
May 15—From Dr. Flinn, Secretary Santa Cruz County) ...	18.00
May 15—From Dr. Flinn, Secretary (Yavapai County)	24.00
May 20—From Dr. Flinn, Secretary (Pima County)	40.00
May 20—From Dr. Flinn, Secretary (Cochise County)	38.00

\$559.45

CASH PAID OUT.

1908.

July 29—To Journal-Miner Printing Co.	\$ 7.00
July 29—To Southern California Practitioner	45.00
July 29—To Dr. Flinn, office expenses	10.00
Oct. 21—To Journal-Miner Printing Co.	2.50
Oct. 21—To Howe Bros., floral design (Coleman funeral) ..	10.00
Dec. 4—To Southern California Practitioner	40.00

1909.

April 23—To Dr. Flinn, office expenses	15.00
April 23—To Journal-Miner Printing Co.	15.50

April 29—Dr. Flinn, badge bill	13.20
May 13—To John J. Hawkins, legal services (vital statistics bill)	10.00
May 14—To Dr. Flinn, office expenses	5.00
May 14—To Journal-Miner Printing Co.	31.00
May 20—To Millicent Keating (typewriting for Secretary) ..	50.00
May 20—To Southern California Practitioner, balance.....	5.35
	<hr/>
	\$259.55
Balance on hand	\$299.90
(Signed) E. B. KETCHERSIDE,	
Treasurer,	

REPORT OF THE COMMITTEE
ON PUBLIC POLICY AND LEGISLATION TO THE HOUSE OF
DELEGATES OF THE ARIZONA
MEDICAL ASSOCIATION, MAY
19, 1909, AT PRESCOTT, ARIZONA.

To the House of Delegates of the Arizona Medical Association—Greetings:

We beg leave herewith to present our first official report.

A review of the year's work naturally classifies itself under three heads, (1) Legislation Accomplished, (2) Defeated Legislation, and (3) Future Legislation.

Under legislation accomplished we would call your attention to the following laws, though claiming no particular credit to ourselves for their passage:

(a) Classification of skunks with predatory animals. This bill, which we could and did gladly leave to the care of others, was made a law. The bounty is small—\$1.00—but we note that it is sufficient to stimulate a movement directed to the extermination of this pest.

(b) In the matter of a "Change in County Hospital management in first-class counties." Here again we were

fortunate in finding others to shoulder our burden. Largely through the efforts of the Board of Supervisors of Yavapai County, and the efficient work of Dr. R. N. Looney, this bill became a law.

(c) Model Vital Statistics Bill for Arizona. This was your committee's real work for the winter, and our thanks are due to the Twenty-fifth Legislature for their very kindly consideration of our wants, but particularly are our thanks due Hon. George Morris of the Assembly, for digging the bill out of a seemingly hopeless calendar, and to Drs. Flynn and Southworth for discovering this critical state of affairs, and applying the remedy. We do not wish to appear egotistic, and if you will accept this as intended, we will quote from a communication received from the Bureau of Medical Legislation of the American Medical Association, concerning this law. We do this for our mutual encouragement:

"Permit me to extend my congratulations to Arizona and its committee on medical legislation on being the first to secure the passage of a model vital statistics law in 1909. I have written Dr. Wilbur (Bureau of Census) that the law has been passed and hope that he can arrange at once to have Arizona admitted to the list of registration States. I sincerely hope that your example may be contagious and that your neighbors may be led to follow it."

The subject of the fumigation of railroad coaches and a general registration law for tuberculars was discussed with the Attorney-General and the opinion given that they properly belonged to the province of the Territorial Board of Health, and that suitable regulations could be established by said board. We recommend that this be done.

DEFEATED LEGISLATION:

An appropriation for a public health laboratory in conjunction with the University of Arizona was lost, largely

through the fact that there was no champion on the field, when one was needed, rather than through any real opposition to it. We do not anticipate a second defeat.

An amendment to our narcotic drug law, carrying all the force of a model law, was, we fear, the victim of a like fate and for a like reason.

FUTURE LEGISLATION:

Under this head we would respectfully call your attention to the two failures just noted as heading the docket, and direct your attention to "Medical Expert Testimony," "Milk and Meat Inspection," "Corporation Practice of Medicine," and "Suppression of Venereal Diseases."

It seems proper that we should at this time call the attention of the House of Delegates and through you of the Arizona Medical Association to the provision of our constitution creating a committee on legislation and public policy.

Chap. VIII—Section III.

The Committee on Public Policy and Legislation shall consist of three members and the president and secretary. Under the direction of the House of Delegates it shall represent the association in securing and enforcing legislation in the interest of public health and scientific medicine. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall strive to organize professional influence so as to promote the general good of the community in local, state and national affairs.

While we have not accomplished a great deal in the way of medical legislation, we have, I think, centered much of our medical thought upon problems of medical legislation, which means that future medical laws will be framed by medical men and placed upon our statute books through their efforts; but,

gentlemen, to be successful, we must first agree in our various county societies upon what we want, and then all work through the Legislative Committee for that object.

Respectfully submitted,

C. E. JOUNT,

Chairman of the Committee on Public Policy and Legislation of the Arizona Medical Association.

Prescott, Arizona, May 19, 1909.

Report of the Committee on Necrology of the Arizona Medical Association.

Whereas, God in His infinite wisdom has seen fit to call from earthly toil and suffering our fellow-member, James W. Coleman, who departed this life October 5, 1908; therefore, be it

Resolved, That this association has lost a most valuable member. Four years ago, in this city, Dr. Coleman was elected president of this association and made a most efficient officer. The medical profession of Arizona has lost a most loyal and worthy member. His patients feel the loss of a wise counsellor and most self-sacrificing friend. His family mourns the loss of an indulgent husband and father. Arizona has lost a loyal citizen. An ideal man and an ideal physician has passed from us. His life should be an inspiration to us all on account of the high ideals he manifested in his domestic, professional and civic life.

(Signed) W. V. WHITMCRE,

ANCIL MARTIN,

E. B. KETCHERSIDE,

Committee.

THE ARIZONA MEDICAL ASSOCIATION.

Minutes of the General Meetings of the Eighteenth Annual Session.

The eighteenth annual session of the Arizona Medical Association was held in the Yavapai Club, Prescott, May 19 and 20, 1909. The meeting was called to order at 10 a.m., Wednesday, May 20.

by First Vice-President John W. Foss of Phoenix, in the absence of the president.

Mr. Morris Goldwater, Mayor of Prescott, delivered a very cordial address of welcome to the members and guests. He said:

Mr. President, guests and members of the Arizona Medical Society:

If I were a doctor, I would be an Iconoclast. One of the false ideas I would try to destroy, is the belief that the Mayor should always make the address of welcome at public gatherings.

I know something of medicine; I have a number of receipted bills from both doctors and druggists to prove this statement. I have read a great deal of your wonderful doings, in the Sunday supplements, and the magazines, and it seems to me what I have lately read, that you should have been welcomed by one of your own "kidney;" say, for instance, the Mayor's medical advisor, the City Health Officer.

Taken singly and professionally I do not like doctors and I think most of our people will agree with me in this dislike. But taken collectively, personally, and on behalf of the city of Prescott I am pleased to welcome you. We are glad to have you with us because we think your gathering here will be a good advertisement to our city. When your brethren of the medical profession read in the medical journals the reports of your doings, we hope they will look us up and learn of our splendid climate, our ideal situation, our resources and advantages, and be so impressed with our health-giving or health-restoring facilities, that there will be an influx of home and health seekers to this City of the Pines.

But we are not altogether selfish in our welcome. We are glad to have you with us because we know that the motives which prompt you to hold these annual meetings are noble. We believe you are actuated by a desire to benefit

and help the suffering, even while you hope to help yourselves. We welcome you as men who stand high in the esteem of the people among whom they live, and we shall always be glad to have you select Prescott as the city in which to spend your vacations.

You are in a land filled with copper, gold and silver, but unfortunately for both you and me my jurisdiction does not extend over the precious metals; but such as I have, I give unto thee. You are welcome to our air, our climate, our pure water. We welcome you to our homes. We welcome your inspection of our streets, our alleys, our sewers, yards and unsightly billboards. We welcome and invite your criticism, your counsel and your advice.

We commit you to the care of your brother practitioners, who, being Prescott men, will, we know, care for you properly, and we hope that quickened by your stay with us, you may return to your places of labor with increased power to heal the sick, bind up the wounded, comfort the distressed, soothe the afflicted and restore peace to the troubled mind.

John Wix Thomas of Phoenix, president of the Maricopa County Society, responded briefly to the Mayor's address of welcome, as follows:

"With such attractions as J. L. Sullivan, the Bohemian Girl and other interesting things at Phoenix, I am sure we appreciate the many kind expressions of Mayor Goldwater. We like your city, your sunshine, especially during the summer months. I am sorry that Mayor Goldwater cannot give us some of that gold, silver and copper. We appreciate the kind offer to visit your homes and other places in Prescott, and we shall endeavor to make use of these offers and your time for the betterment of our profession. We shall be glad to welcome the physicians of Prescott and others from the different parts of the Territory in Phoenix next year."

The Honorable Richard E. Sloan, Governor of the Territory, who was present, was called upon by the chair for an address. The Governor asked to be excused as he was already engaged to address the association on two occasions; first at its annual banquet that evening and again as chairman of the public meeting on tuberculosis to be held the following evening.

The annual essay was then read by Edward S. Godfrey, Jr. of Tucson, his subject being, "A Glance at the Past, and a Glimpse of the Future."

A paper on "The Physician's Duty to the Public," by John W. Foss of Phoenix, and one on "The Physician and His Duty to Himself," by E. B. Ketcherside of Yuma, were then read, and were followed by a very free discussion of these most interesting subjects. J. B. McNally read a paper on "Surgical Technique," which was thoroughly enjoyed, and was discussed by Flinn of Prescott and Stillman of San Francisco.

A very complete paper on "Anterior Poliomyelitis," was read by A. J. Ros-enberry of Jerome, and it lead to a very full discussion by Stillman of San Francisco and Barlow and Fulton of Los Angeles. The association then adjourned until 2 p.m.

The afternoon session convened at 2 p.m., with First Vice-President John W. Foss in the chair.

Dr. Stanley Stillman, Professor of Surgery at Cooper Medical College, San Francisco, then delivered the oration on "Surgery," by request. Dr. Stillman's paper was on "Surgery in Infancy," and was a clear, concise statement of the present day views on this branch of surgery, illustrated by reference to case reports from Dr. Stillman's clinic.

Replying to a question from Dr Southworth, the open method of anaesthetizing with ether, as practiced in Dr. Stillman's clinic was described in detail.

Dr. Murietta of Jerome followed with carefully prepared case reports of (1) abscess of the liver, and (2) organic stricture of the urethra, after which Dr. Southworth of Prescott gave a very full and frank report of a case of abscess of the liver from his practice, in which case the symptoms were very indefinite and the history practically negative. Dr. Southworth was fortunate in being able to verify his diagnosis by post-mortem examination, but unfortunate in that when he was consulted the time for successful operative interference had already gone by.

These two most interesting papers were discussed at some length, by Stillman of San Francisco, who referred to the increasing number of cases of abscess of the liver, which were encountered in San Francisco, with the increasing travel from the Orient.

A "Report of a Case of Irreducible Fracture of the External Condyle of the Humerus and Operation," by Francis E. Shine of Bisbee, in which a particularly happy result was obtained, was read by W. D. Cutter of the Copper Queen Hospital staff, Bisbee. Interesting case reports of Caesarian section and abscess of the spleen, by Dr. Mark A. Rodgers, both followed by prompt recovery, was read by Dr. Whitmore of Tucson.

The last paper of the afternoon session was presented by W. I. Linn of Prescott, on "Digitalis." Dr. Linn considered very fully and completely the source and life history of the plant, and the characteristics, preparations, uses and abuses of the drug. This paper was very fully discussed by John Wix Thomas of Phoenix, Barlow and Fulton of Los Angeles, Plath of Phoenix and others. The association adjourned until 10 o'clock the following morning.

The association met at 10:30 a.m., Thursday, May 20, with Dr. Foss in the chair.

R. W. Graham of Prescott read a very trophy of the Pharyngeal Tonsil," which carefully prepared paper on "Hyper- was discussed by Martin and Plath of Phoenix and Rosenberry of Jerome. Dudley Fulton of Los Angeles then presented by request a very interesting instructive paper on "Differentiation of Reflex Dyspepsia from Primary Organic Disease of the Stomach." Unfortunately Dr. Fulton had already made arrangements to have this paper published in an eastern journal, and so it will not appear in the Practitioner. However, Dr. Fulton has kindly agreed to furnish reprints to the members of this association, which will enable them to study more closely and refer to as the needs arise, a paper which they enjoyed very much in hearing read.

The oration on "Medicine," by W. Jarvis Barlow, dean and professor of medicine of the Los Angeles Department of Medicine of the University of California, was then read by request.

The title of Dr. Barlow's address was "Modern Medicine: Control of Disease by Prevention." What has already been accomplished in preventive medicine, and what we should expect in the immediate future from this most important branch of medical science was discussed very fully. The paper was especially helpful in that it referred to our present needs in Arizona in view of approaching statehood.

After the delivery of this address it was moved, with the permission of the author, that a committee be appointed to embody the suggestion contained in Dr. Barlow's paper, in the form of resolutions for the consideration of the association. This motion was carried unanimously, and the acting president named Harry T. Southworth of Prescott, William D. Cutter of Bisbee and Willard Smith of Prescott, as such committee.

Later in the day this committee presented the following report, which was unanimously adopted. The secretary was instructed to mail a copy of these resolutions to the Governor and to the Mayor of each city and town in Arizona.

Arrangements were also made whereby Dr. Barlow's address was published in full in the daily press of Prescott.

RESOLUTION.

PRESCOTT, Ariz., May 20, 1909.

To the Arizona Medical Association:

Stimulated by the clear and comprehensive study on Preventive Medicine, given this morning by Dr. W. Jarvis Barlow of Los Angeles, we, the committee appointed to draw up resolutions embodying his suggestions, submit the following:

First. Resolved, That the Arizona Medical Association recommends the formation of an Arizona Public Health Association, whose object shall be a study of public health problems, the education of the public and cooperation with the various boards of health of Arizona.

Second. Resolved, That the Arizona Medical Association recommends the compulsory registration of all contagious and infectious diseases, including tuberculosis and compulsory vaccination of school children and systematic re-vaccination.

Third. Resolved, That the Arizona Medical Association recommends that such legal steps be taken as will insure thorough inspection and regulation of the milk supply.

Fourth. Resolved, That the Arizona Medical Association appoint a committee of five to report through its official organ, The Practitioner, and to the secretaries of the county societies, such information as they can obtain regard-

ing public health legislation and organization and to formulate a definite programme to lay before the Constitutional Convention of Arizona, and that upon the recommendation of this committee a special meeting of the Arizona Medical Association be called to formally adopt such a programme.

Respectfully submitted,
HARRY T. SOUTHWORTH,
WILLIAM D. CUTTER,
WILLARD SMITH,
The Committee.

The final meeting of the session convened at 2:15 p.m., Dr. Foss in the chair.

William V. Whitmore presented a most interesting collection of "Some Obstetrical Curiosities," from his own midwifery practice. The paper was discussed by Ketcherside of Yuma, Plath of Phoenix, Stillman of San Francisco and Toney of Humboldt, each of whom had some unusual experience to relate.

The association then listened with close attention to a paper by Ancil Martin of Phoenix, on "Infections of the Conjunctiva," and one by Daniel W. White of the Indian School, Phoenix, on "Trachoma," with illustrating charts. Dr. Martin prefaced his paper with a few remarks on the history and prevalence of Trachoma in this Territory, and referred in terms of the highest praise, to what Dr. White had accomplished in persuading the United States government at Washington to make appropriations for a trachoma hospital at the Indian School at Phoenix, and for a special corps of nurses and assistants to aid Dr. White in combatting this disease among the Indians of that region.

Dr. Martin reviewed concisely the general infections of the conjunctiva, while Dr. White gave a very full description of trachoma and the best methods to treat it.

These papers were discussed by Southworth of Prescott and Capps of Crown King.

C. E. Yount of Prescott then read a very complete (almost exhaustive, considering the scarcity of literature on the subject) paper on "Rabies; with Report of Cases from Skunk Bites." Dr. Yount discussed very fully the aetiology and pathology of this disease, and reported in detail the history of quite a number of cases which had developed from skunk bite. He also described at some length the treatment used so successfully in the different Pasteur institutes and exhibited specimens of the negri bodies under the microscope.

The paper was discussed by Plath of Phoenix, Barlow of Los Angeles, and others.

The last papers read before the association were by W. Warner Watkins on "Immunity and Tuberculosis," and by John W. Flinn of Prescott, "Immunity and Serum Therapy in Tuberculosis."

These papers were fully discussed by Barlow of Los Angeles and R. L. Cunningham of the Barlow Sanatorium, Los Angeles.

H. T. Southworth of Prescott then introduced the following resolution, which was unanimously adopted:

"In view of the fact that each succeeding year larger numbers of tuberculosis patients come to Arizona seeking the benefits of her climate, and

"In view of the fact that many of these being ignorant of the economic conditions existing here, come inadequately provided with funds, either to support themselves or secure proper medical treatment, and in consequence not only fail to derive expected benefit, but often become destitute and dependent;

"Therefore be it resolved That the Arizona Medical Association, through the various official organs, inform the members of the medical profession

throughout the country, of the existing state of affairs, and request their co-operation in educating those afflicted with tuberculosis and their physicians and friends as regards the real economic conditions in Arizona, and so preventing as far as possible this needless hardship."

Hearty votes of thanks were tendered (1) The Yavapai Club, for the use of their commodious room; (2) the Daily press of Prescott for full reports of the meetings, and many kindly words of welcome and encouragement, and (3) to The Yavapai County Medical Society for their royal hospitality.

The following telegram was received and much appreciated:

"Pine Bluff, Ark., May 20. Secretary Arizona State Medical Association, Prescott, Ariz. 'Greetings, hearty congratulations, best wishes for successful meeting.' (Sgd.) Arkansas Medical Society, annual session." A suitable reply was wired the Arkansas Medical Society, and appreciation expressed for their very kindly wishes.

A largely attended clinic was held at the Mercy Hospital by Dr. Stillman on the morning of May 20.

The annual dinner of the association at which the Yavapai County Society host, was held at the Hotel St. Michael on the evening of May 19. Besides the members of the association and their guests, Governor Sloan, F. M. Murphy, ex-Associate Justice Hawkins, ex-Attorney-General Clark, Messrs. Rees M. Ling, John Mason Ross, T. G. Norris and Paul Burks of the Arizona Bar, and other prominent citizens were guests of the Yavapai Society on that occasion. The association adjourned sine die, at 5:30 p.m., May 20.

(Signed) JOHN W. FLINN,
Secretary.

ARIZONA TUBERCULOSIS ASSOCIATION FORMED.

Will Be Associated With the National Association in Study and Treatment of the Disease.

An association for the study and prevention of tuberculosis was organized at a mass meeting last night in the High School auditorium. The association is named the Arizona Association for the Study and Prevention of Tuberculosis. It will be affiliated with the national association. The constitution and by-laws of the California association were adopted. A call for membership will be issued later by the officers of the association.

Dr. John W. Foss of Phoenix was elected president; President K. C. Babcock of Tucson University, first vice-president; Dr. John E. Bacon of Tombstone, second vice-president; Rev. J. E. Crutchfield of Phoenix, third vice-president; Lloyd Christy of Phoenix, treasurer, and Dr. John W. Flinn of Prescott, secretary.

The consulting medical board of the association is Dr. O. E. Plath of Phoenix, Dr. H. T. Southworth of Prescott, Dr. W. V. Whitmore of Tucson and Dr. W. D. Cutter of Bisbee.

Governor Sloan presided. In his opening speech he referred to the good work done by the Arizona Medical Society, and referred to the duties of the physicians in combating the ravages of the great white plague.

Dr. Jarvis Barlow was the next speaker. He said that last night's meetings had a larger attendance and was more successful than any meetings held by the Los Angeles society during the two years first following its organization.

He explained the nature of the dread disease known as tuberculosis and referred to the lack of danger from its infection if the person afflicted were

cleanly in habits. He referred to the following agencies for the prevention of the spread of the disease in the order of their importance:

First, dispensaries; second, visiting nurse; third, day and night camps; fourth, sanitariums for the cure of curable cases; fifth, hospitals for the treatment of incurable cases.

The doctor declared during his address that if compelled to have only one of these agencies that he would prefer the nurse. The next most important agency he considered the day camp, as it is cheap and effectual in educating the sick and preventing the spread of the disease. He said the tubercular who destroys his sputum and keeps clean is no danger to anybody.

Dr. Cunningham, resident physician of the Barlow Sanatorium of Los Angeles, described in detail and in a very interesting manner the method of treatment of tuberculosis in his institution. The institution was established by Dr. Barlow as a semi-charitable one. Dr. Barlow still devotes much of his time to it.

Rev. J. E. Crutchfield, presiding elder of the M. E. Church, South, of Arizona, described at length how church workers could assist in preventing the spread of tuberculosis.

M. G. Cuniff, in the course of his address, declared that the Prescott

schools compared favorably with any in the United States from a sanitary standpoint. He recommended the appointment of a medical inspector whose duty it should be to visit the schools and investigate the health of the children.

Attorney E. S. Clark, in his address, said that the public should be aroused to the great importance of the question of tuberculosis. He advocated that pressure should be brought to bear on legislators looking to the passage of legislation for the protection of the healthy and the treatment of the afflicted ones.

The meeting was enthusiastic. Every seat in the spacious auditorium was filled.

Governor Sloan, in his closing remarks, thanked the people of the city for the deep interest they manifested in the object of the new association and their keen appreciation of the benefits to be derived from carrying out the principles of the society.

Dr. and Mrs. W. D. Cutter of Bisbee, Dr. and Mrs. Whitmore, Dr. E. S. Godfrey, Jr. of Tucson, Dr. and Mrs. Powell of Benson, Dr. A. J. Murieta of Jerome, Dr. and Mrs. R. N. Looney, Dr. and Mrs. J. K. McDonnell and Dr. and Mrs. John W. Flinn of Prescott visited the Grand Canyon after the meeting of the Arizona Medical Association.

CORRESPONDENCE.

RECIPROCITY BY STATE EXAMINING BOARDS.

To the Editor:

At the San Jose meeting license reciprocity was discussed and voted down. There has always been a demand for reciprocity, especially by those who approve the theory and are unfamiliar with its practical results. All of us would be glad for a national law, of

high type, under which a qualified man could practice anywhere in our land. We would be glad for a United States examining board. These things are impossible until the old "states rights" theory is still further modified. As matters stand, each state having a different standard and certain selfish reasons for its laws, reciprocity is of questionable value. It has been remarked

that states having the largest number of cheap medical colleges, which contribute annually a large output of very ordinary men, have the most liberal reciprocity laws. Such states must have a market for their product. On the other hand, states having few medical colleges and those of high grade, disregard reciprocity for fear of being over-run by cheap products. As the standard of medical education has advanced reciprocity, which was formerly universal between the states, has lost ground. Indeed, the cry for reciprocity is simply another form of the demand for reversal of the standard. Our local critics speak as if California is an exception. The truth is that many states refuse to reciprocate and that the more recent and better legislation is opposed to it. That "no-reciprocity" is the more modern, more advanced position is a fact. Alabama, Arizona, Arkansas, California, Connecticut, Idaho, Massachusetts, Mississippi, Montana, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Washington and Florida have no reciprocity—16 states. In Delaware, District Columbia, Georgia, New Jersey, North Carolina, North Dakota, West Virginia, Wyoming—8 other states—the reciprocity clause is inoperative. Reciprocity is, therefore, unknown in 24 states. To illustrate what is meant by "inoperative." Wyoming will reciprocate with states having exactly similar requirements, but none have them. West Virginia will reciprocate with any state that will, among other things, maintain an average of 80 per cent. and a minimum of 65 per cent. in the examinations. North Carolina demands 80 per cent. average from any reciprocating state, but Rhode Island, the only one who could, will not respond. Indeed, in addition to the 24 states referred to there are a number in which the reciprocity clause is made of no effect by the intricacies of its conditions. In Canada the situation is the

same. Every state, Alberta, British Columbia, Manitoba, New Brunswick, Nova Scotia, Prince Edward, Ontario, Saskatchewan and Quebec has its own law, without any provision for reciprocity. Perhaps it would be well for some of us to study the question before jumping to conclusions. Our board is criticised for having examinations so far apart that applicants are inconvenienced. In 20 states examinations are held only twice per year, while two states have annual examinations. Many states require applicants to be bona fide residents. In Kentucky only graduates of recognized medical colleges located within the United States are permitted to apply. Wouldn't that raise a howl in California? In many states the law, wisely I think, discriminates against the old practitioner. For instance, South Carolina has two sets of examinations, the junior curriculum and the senior curriculum. The junior includes anatomy, histology, botany, chemistry, physics, bacteriology, pathology, etc. Now, any man holding a diploma from a four-year medical college (recognized) and who shall have passed on each branch with not less than 75 per cent., as certified to by the college dean, may omit the junior examination. All others, which simply means old practitioners, must take it before being admitted to the regular examination for a license. The United States government is the only body that dares to treat its old practitioners as most of them deserve. To join the army medical corps a man must possess a medical diploma, but its only value is to admit him to an examination. He passes, is made assistant surgeon with rank of lieutenant. When he wants a promotion, after five years, he must take another examination, and if he passes, may become a passed assistant surgeon, with rank of captain. Another five years goes by, the man is an experienced old practitioner. If he wants promotion

he is up against another examination. If he passes, he may become a surgeon, with commensurate rank. Under the old contract surgeon system, the government used a man until he became old and experienced, i. e., fell into a rut and behind the times, then tossed him aside. I hope to see the time when California will issue, after proper examination, a license good for five years. At the end of that time require the man to take another examination, and if he passes, give him a license good for ten years more. Then a final examination which, if passed, will entitle the appli-

cant to a permanent license. All of us who now possess licenses should be considered in the five-year class. At the end of twenty years our state would have the most competent body of physicians in the world. We old fellows would have to "keep up" or fall by the wayside, where so many of us rightfully belong. Why not take hold and work for this ideal? The least advantage in doing so would be to furnish our "kickers" some real pricks for their toes.

JNO. C. KING.

Banning, Cal., June 1, '09.

BOOK REVIEWS

SURGERY: ITS PRINCIPLES AND PRACTICE. In five volumes. By 66 eminent surgeons. Edited by W. W. Keen, M.D., LL.D., Hon. F.R.C.S., Eng. and Edin., Emeritus Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia. Volume IV. Octavo of 1194 pages, with 562 text-illustrations and 9 colored plates. Philadelphia and London: W. B. Saunders Company, 1908. Per volume: Cloth, \$7.00 net; Half Morocco, \$8.00 net.

Volume IV is a book of eleven hundred and ninety-four pages, containing seventeen surgical monographs, from chapters LIII to LXIX. Coley has covered the entire subject of hernia in an article of 109 pages. Undoubtedly at present the evidence is very strongly in favor of Bassini's method, with or without the transplanting of the cord. Kocher's method is almost ideal in his hands, but the former seems to be in favor with a greater number and is perhaps applicable to a wider range of cases.

Coley is very strongly in favor of rubber gloves as a most important element in the technique of hernia operations, since their use primary union has been obtained in 98.5 per cent. of the cases.

Coley does not endorse the use of local cocaine anaesthesia for hernia, notwithstanding the reports of Cushing and Bodine. He says that of 3200

cases in hospital and private practice but one death occurred from ether anaesthesia, and that in a child recently recovered from measles. This article is very complete not only in the consideration of all the more usual forms of hernia, but the unusual ones are also carefully and clearly presented. By unusual I mean hernia of the ureter, stomach or bladder, and diaphragmatic hernia, paraduodenal hernia, hernia of the intersigmoid fossa, hernia through the triangle of Petit, and perineal or hernia through the perineal outlet.

Abbe of New York writes the section on surgery of the rectum and anus and he has done it very well. All these diseases are of every-day interest. Hemorrhoids and hernia are perhaps the most widespread afflictions that we meet.

The article by Edsall on the examination of the urine in relation to surgical measures is a very satisfactory one to those of us who agree with him that modern methods of examining the urine have, but in a few ways, furnished really satisfactory additions to our diagnostic powers.

After all is said and done we get the most real clinical value from a

knowledge of the total quantity, the color and the specific gravity of the urine, with an examination for albumin, casts and other formed elements. Those who expect clinical laboratory methods to furnish specific facts of conclusive diagnosis value will meet many sore disappointments. What we really want to know is not only what the kidneys are doing at any particular time, but what they are capable of doing in response to an extra demand, of a normal or abnormal character.

We fully agree that as yet that the most reliable clinical tests for albumin are the potassium ferro-cyanide and the dilute acetic acid. In our work we use no others. Of course the tests must be correctly applied and one must be familiar with the amounts to be employed. Edsall notes the frequency with which the so-called nucleo-albumin is confused with serum albumin, its significance is so different that we should always be on our guard. We are also glad to learn that Edsall thinks that when blood is found in the urine, the determination whether the albumin comes entirely from the blood or partly from a coincident or nephritis is extremely difficult and often impossible, and that a search for casts and general examination for systematic signs of nephritis are the only reliable measures.

Nor has the writer any faith in one's ability to distinguish accurately in urine the epithelial cells from the kidneys the pelvis, the ureters and other portions of the urinary tract. Neither have we.

The necessity of examining freshly-passed urine when looking for formed elements is clearly stated.

The conservative tone of the entire article is very refreshing in the light of some recent claims as to our abilities in urinary diagnoses—this, for example, "burdensome quantitative estimations of the amount passed usually tell one

nothing in regard to the local damage that oxalates, uric acid, phosphates, etc., may be doing."

Surgery of the kidney, the ureter and the suprarenal gland is a large chapter of eighty-eight pages by Ransohoff of Cincinnati.

Of late here in the West kidney fixation has become rather fashionable and Ransohoff's statement that in a very large proportion of cases movable kidney does not cause any symptoms and that the degree of motility does not determine the severity of symptoms, is in accord with our observations, but when symptoms are present we do not agree with the writer that palliative measures will often suffice. We have never seen any type or form of abdominal bandage that would relieve symptoms that were really due to a floating, movable kidney alone and not to those of a general visceral descent.

Branford Lewis's opening words in the chapter on the Surgery of the Bladder could with propriety be applied to all beside medicine—the two steps necessary in arriving at a diagnosis of disease are: 1st, acquiring the evidence referable to the affection; 2nd, making correct deductions from that evidence. If it could always be done how easy would be our task; the acquiring the evidence is a painstaking task, particularly in genito-urinary disease, and demands deftness in the technique of rather complicated paraphernalia. All these instruments and their usage are carefully and clearly considered.

Lewis mentions epidural injections suggested by Cathelin in 1901 for incontinence of urine and frequency of urination in children, but refrains from comment on a method which has always seemed too dangerous to us to advocate.

Lewis thinks that while it has not been definitely proven as yet, one of the earliest producers of urinary tuberculosis is the persistent appearance in the urine of red blood-cells in micro-

scopic quantity—covering a period of years, perhaps before the disease reaches a stage which introduces its clinical features, or changes to a microscopic hematuria, of course bloody urine is a frequent accompaniment of the latter stages. This we have always believed to be a valuable sign and so taught it in our classes with Osler for a number of years.

Bryson's suggestion, endorsed by Lewis, that we are more liable to find tubercle bacilli in the small quantity left over after voluntary urination is valuable and has aided us many times. This urine, of course, must be secured by a soft catheter, immediately sedimented and examined at once, while fresh. It is very probable that tubercle bacilli decompose in standing alkaline urine.

Arthur Tracy Cabot contributes a very good article on stone in the bladder. We regret very much to see on page 433 the introduction of a personal controversy into a scientific article; it is a distinctly discordant note in this monumental work and mars the otherwise attractive article of Young on the surgery of the prostate.

When reading this article one unconsciously compares a portion of it to the splendid contribution of Deaver to enlargement of the prostate gland, made just four years ago this month. Its more conservative statements are in sharp contrast to those of Young, who says, for example, page 451, that the sexual powers have been preserved in almost all of his operative cases, an experience that, unfortunately, does not come to many of us.

Horwitz, in his article on Surgery of the Penis and Urethra makes the statement, page 519, that primary tuberculosis of the urethra is much more common than is generally believed, and that it is more common in the male than in the female. He adds that the symptoms of primary infection are vague. Read them and you will agree

with him, vague almost to non-existence. On page 526 the directions for the use of Protargol are not clear; the dose could be worked out, possibly, by an arithmetical problem, but it should be clearly stated what the initial strength of the solution should be.

This article is a very full consideration of the diseases of the penis and urethra, and occupies one hundred and fourteen pages of the text, with many excellent illustrations.

It is immediately followed by the article of Arthur Dean Bevan on the Surgery of the Scrotum, testicle, spermatic cord and seminal vesicles. The author's operation for undescended testicle is described with great care and with ten illustrations. The pages devoted to hydrocele and varicocele are extremely valuable to the student in that they so clearly explain the two conditions and their treatment.

The title to the illustration number 334 is incorrectly spelled. Surgery of the Intestines, excluding the appendix, rectum and anus; and surgery of the omentum and mesentery, are allotted to Weller Van Hook and Allan B. Kanaval, ninety-seven pages.

Surgery of the Appendix Vermiformis, typhilitis, perityphilitis, epityphilitis is by Murphy of Chicago, about seventy pages of most entertaining and instructive literature.

All of us have seen the horrible calamities due to the so-called conservative or expectant treatment of appendicitis, and it is refreshing to read these words of Murphy: "It seems to me that every death from appendicitis is chargeable directly to the people, for not calling in the physician sufficiently early after the onset of the symptoms, or to the physician and surgeon for not acting promptly when they are called. We are sorry to admit that the latter represents the greater percentage. We should have *no* deaths from appendicitis, but we *are having them*. We should accept the force of numbers

and experience to guide us against the culpable, if not criminal, error of delay in this class of cases. It is not necessary that every physician should lose a case to learn the lesson, any more than that every doctor should lose a case under chloroform anaesthesia before learning to abandon it."

The reviewer has just left the operating theater of the great Deaver in Philadelphia, one of the world's foremost surgeons, and heard him make identical remarks at the bedside of a bread-winner, the father of five children, dying from conservative and expectant treatment, brought to the hospital with a gangrenous, stinking abdominal cavity, too late for even this inimitable surgeon to save.

Why will not the mass of general practitioners listen to these two oracles?

We are greatly pleased to note Murphy's endorsement of serum and vaccines in these suppurative cases.

The technic of proctoclysis is explained in all its simplicity and it is extraordinarily simple. Murphy thinks that the improvements on the simple technic have been disastrous in their results.

Dench of New York contributes a careful article of fifty-one pages on the surgery of the ear. The surgery of the eye is a magnificent monograph of nearly a hundred pages by the gifted De Schweinitz of Philadelphia, written as always in his pleasant and correct style, instructive to all of us and of distinct value to the work.

O'Reilly, the Surgeon-General of the United States Army, contributes the paper on Military Surgery, and Rixey, the Surgeon-General of the Navy, that on Naval Surgery, two articles of great general interest, in view of the recent developments in these services. So also is the article on Tropical Surgery by McCaw of the Army interesting for the same reasons. Many of these diseases are now seen in the United States, par-

ticularly on the Pacific Coast. The volume closes with a very readable article on the Influence of Race, Sex and Age in surgical affections by Rodman of Philadelphia.

WILLIAM A. EDWARDS.

VACCINE AND SERUM THERAPY, including also a study of Infections, Theories of Immunity, Opsonius and the Opsonic Index. By Edwin Henry Schorer, B.S., M.D., Assistant Professor of Parasitology and Hygiene, University of Missouri; formerly Assistant Rockefeller Institute for Medical Research, New York City. Illustrated. Cloth, 131 pages, price \$2.00. St. Louis: C. V. Mosby Co. 1909.

So much has recently appeared in the current medical publications on the opsonic index that it is pleasant to welcome a volume that deals with this particular subject. Not only are the opsonic index, the vaccines and the sera discussed from the standpoint of their relationship to immunity, but their value and significance also.

No subjects in medicine have been so much discussed since 1904 as have these, so that this review and analysis by Schorer, will no doubt be accorded a warm welcome.

ESSENTIALS OF LABORATORY DIAGNOSIS. Designed for students and practitioners. By Francis Ashley Faught, M.D., Director of the Laboratory of the Department of Clinical Medicine, and Assistant to the Professor of Clinical Medicine, Medico-Chirurgical College, etc., etc., Philadelphia, Pa. Fully illustrated with Indian Seal in Colors, six full-page plates and numerous engravings in the text. Crown Octavo, 309 Pages. Flexible Cloth. Rounded Corners. \$1.50 net.

For its price, this is easily the best book of its kind with which we are familiar, and we do not hesitate to affirm that its concise, clear, to-the-point presentation of laboratory essentials makes it worth a good deal more.

The author possesses an admirable style or power in handling a difficult mass of subject matter. He wastes no time discussing unessentials. Nor does he lessen the value of his work by omitting important details when details are necessary. There are chapters on the opsonic index, blood-pressure, hu-

man milk, etc., so that the book is thoroughly alive to recent advances. But over and above all else is the excellent presentation of the subjects, so that its methods can be followed with ease and without loss of time in any laboratory, large or small.

THE PRACTICAL MEDICINE SERIES, comprising ten volumes on the Year's Progress in Medicine and Surgery, under the General Editorial charge of Gustavus P. Head, M.D., Professor of Laryncology and Rhinology, Chicago Post-Graduate Medical School. Volume III. The Eye, Ear, Nose and Throat, edited by Casey A. Wood, C.M., M.D., D.C.L.; Albert H. Andrews, M.D., and Gustavus P. Head, M.D. Series 1909. Chicago: The Year Book, Publishers, 40 Dearborn street.

The Practical Medical Series maintains in this volume its well-known reputation for up-to-date presentation of the literature of the current and previous year.

Physicians who wish to keep abreast of the best and latest will find here an excellent summary of the more recent views in the specialties of the eye, ear, nose and throat.

HAND-BOOK OF MODERN TREATMENT AND MEDICAL FORMULARY; a condensed and comprehensive manual of practical formulae and general remedial measures. Compiled by W. B. Campbell, M.D., formerly Resident Physician at the Methodist Episcopal Hospital of Philadelphia. Cloth, flexible covers, 483 pages. Philadelphia: F. A. Davis Company, Publishers. 1908.

Medical formularies in too many cases lose much of their value by too much mixture of the good with the bad and by the absence of aught to indicate the special indications of remedies and prescriptions.

Campbell has avoided this error by paying particular attention to therapeutic indications and suggestions. Those who wish a medical formulary will find much of value in this compilation.

WRITING THE SHORT STORY. By J. Berg Esenwein, A.M., Lit. D. Editor of Lippincott's Monthly Magazine; author of "How to Attract and Hold an Audience." Cloth, 12mo. 448 pages; price, \$1.25. Published by Hinds, Noble & Eldredge, New York.

The short story in recent years has gotten a firm hold on the American

public. The editor of *Lippincott's* speaks from a large and valuable experience and matured judgment when he analysis the short story and in lucid fashion and by the dissection of well-known stories, shows how successful authors avoid the pitfalls of the amateur and unsuccessful writer.

From cover to cover, the volume teems with valuable information of the kind most needed by those who have aught of gift with the pen.

HUMAN PHYSIOLOGY. An Elementary Text-Book of Anatomy, Physiology and Hygiene. By John W. Ritchie, Professor of Berlogy, College of William and Mary, Virginia. Illustrated by Mary H. Wellman. Cloth, 362 pages. Yonkers-on-Hudson, New York; World Book Company, 1909.

This is an excellent volume to place in the hands of elementary and high school students and its up-to-dateness and clearness make it readable and interesting to the medical man as well.

It is on books of this type that we must depend for much of the instruction, through which the rising and future generations will come into a better conception of general and personal hygiene and their own direct and indirect relationship to the solution of public health problems.

THE PRACTICAL GUIDE TO HEALTH. A Popular Treatise in Anatomy, Physiology and Hygiene, with a Scientific Description of Diseases, Their Causes and Treatment, Designed for Nurses and for Home Use. By Frederick M. Rossiter, B.S., M.D., Author of the "Story of a Living Temple," Member of the American Medical Association, etc. Cloth, 635 pages. Pacific Press Publishing Association, Mountain View, Cal.

This is a well-written book, which meets with considerable success the needs of the people for whom it has been especially written. Many of the hygienic hints are excellent. There is a tendency to over-emphasize the value of a vegetarian diet, it is true, but on the other hand, it can hardly be doubted that Americans eat far too much meat. No great attempt is made to teach home medication, the need of a phy-

sician for this mode of treatment being emphasized. In the discussion of serious diseases like diphtheria, for instance, where the value of anti-toxin receives no mention, there are what seem to be grave omissions. But on the whole, the book is a cleverly written volume that will no doubt find a hearty welcome among nurses and others who wish a somewhat elementary treatise on hygiene and disease.

ELEMENTARY PRACTICAL TREATISE ON DISEASES OF THE PHARYNX AND LARYNX. By Dr. E. J. Moure, Surgeon in charge of Nose, Ear and Throat Department of the Faculty of Medicine, Bordeaux. Translated and adapted by J. Malecomb Farguharson, M.B., F.R.C.P., Edinburgh; Lecturer on Diseases of the Nose, Ear and Throat in the School of Medicine of the Royal Colleges, Edinburgh; with 210 illustrations. New York: Rebman Company, 1123 Broadway. 1909.

If Moure's book did nothing else than give us an insight into the French view point of diseases of the pharynx and larynx it would be a valuable addition to English medical literature. But it does far more than that—in that it gives the opinions of a man of wide experience in these lines, whose clinical views are well worth the consideration of all who would be alert to the progress that is being made in these specialties in continental countries, other than Germany and Austria.

In addition to a very readable text and excellent illustrations, the publishers have put out a well-bound and printed book.

DISEASES OF THE NOSE. By E. B. Waggett, Oxford University Press.

Dr. E. B. Waggett's, "Diseases of the Nose," contains in the preface the remark that the book is intended to be read, as it was written, rapidly from cover to cover. We have found it as interesting as a short story; one that is read without effort and with pleasure, as well as profit. It is not an encyclopedia of the nose, intended to cover every detail and make an operative spe-

cialist out of the reader. It is, therefore, to be commended to the general practitioner as well as the worker in the special line.

None of us needs go back very far to find the time when all we thought the nose good for was to smell with. When we advanced physiologically to the point of considering the nose necessary to warm and moisten the inspired air, we thought we had reached the uttermost limit of knowledge of the use of the nose. But consider this quotation, "Whereas the front of the nose contains numerous micro-organisms, none are to be found in the posterior regions in 80 per cent. of normal noses; or none which are capable of growth upon ordinary laboratory media—nasal mucus is inhibitive to the growth of micro-organisms. It is not unlikely that this constant fluid circulation (of nasal mucus propelled by the cilia,) divorcing the bacteria from the toxins which they have produced, robs them of their destructive power and even of their faculty of reproduction." Again—"For practical purposes one may say that inspired air which has passed through the nose is *clean* as well as warm and *moist*, and that a healthy man possesses in that organ a protective apparatus which relieves his lungs of all sources of danger, so far as the breath of his nostrils is concerned."

The above quoted passages are indicative of the character of the writing of this little manual. No one can read it without feeling that his nose, even if not beautiful to look at, is daily at work protecting his body from disease germs that might otherwise cause an untimely end to his existence. K.

A little wisp of cotton fastened to the skin with collodion makes an excellent dressing for a boil. Any discharge is absorbed by the cotton and irritation from rubbing of the clothing guarded against.

THERAPEUTICAL HINTS

TYREE'S ANTISEPTIC POWDER.—A quantitative, qualitative, bacteriological and clinical analysis of this preparation is embodied in a most interesting little brochure and sample, which will be mailed physicians by the manufacturer, J. S. Tyree, at Washington, D. C., free of cost upon application. We firmly believe that it is not so much what it contains that gives it its marked value, as the way in which the ingredients are combined. For leucorrhea, gonorrhea, vaginitis, pruritus and ulcerated conditions of the mucous membrane, one to two teaspoonfuls to a pint of water three or four times a day. For scrofulous, syphilitic and varicose ulcers, apply the powder full strength or dilute with boracic acid. As an ointment, use from one to three drachms to one ounce of petrolatum. For spraying the nose and throat, from twenty-five to one hundred grains to one pint of water (dissolves immediately). For immediate deodorizing and disinfecting, sprinkle the powder direct upon the object affected; the results will be instantaneous. For prickly heat, poison oak, squamous eczema and other conditions of a similar nature, use from one to eight teaspoonfuls to a pint of water (has proven very serviceable for these conditions). For the purposes above enumerated it hardly has an equal.

The danger and risk in *general anesthesia* of using any anesthetics known are fully understood by every physician of experience.

The inhalation or injection of drugs is always dangerous.

Ether and chloroform continue, however, to hold first place in the estimation of practitioners, yet both are deadly.

The wise anesthetist will therefore constantly seek such means as will

lessen the danger and so adjust the depth of the anesthesia to the operation as to avoid all the risk possible.

This may be accomplished by the use of an adjuvant that operates externally without the least danger and *lessens* the amount of internal application required to produce complete narcotization.

This means may be found in "Kelene," pure chloride of Ethyl (Fries Bros.).

As adjuvant to ether or chloroform in general anesthesia it will be found invaluable—reduces all risk to a minimum, avoids nausea and vomiting, with far less danger of far-reaching after-effects, such as degeneration of the liver, heart and kidneys, that often have their origin in the too free use of the anesthetic.

The Glass Automatic Spraying Tube, for graduated "Kelene," furnished by Fries Bros., renders administration easy, safe and simple; also economical, as it avoids all waste of material.

In local anesthesia it is pre-eminent. Requires no hypodermic needle, or inhalation of drugs, is absolutely safe and harmless.

Any physician not already familiar with its merits will do well at least to try "Kelene."

THE TREATMENT OF SEVERE VESICAL INFLAMMATION IN THE FEMALE.—E. Zurhelle (Fritsch's University Gynecological Clinic at Bonn); Zeitschr. f. gynäk. Urologie, 1908, No. 2.

Silver nitrate, even in weak solution and skillfully used, is often painful. When the bladder is irritated more intensely by a silver irrigation the burning becomes so violent that soothing remedies must be resorted to. Only in some of the cases can the remaining solution be left in the bladder for any length of time; generally the contents must be voided after a few minutes.

Incited by the publication of Voelcker and Lichtenberg (Czerny's clinic) I have therefore for the past one and a half years used collargol in place of silver nitrate. In a series of chronic cystitides, some of them desperate, I injected $3\frac{1}{2}$ ounces of lukewarm 1% solution, after washing out and emptying the bladder. The absolute absence of any irritative symptom made it possible to leave the solution in the bladder many hours, the effect being correspondingly more vigorous. In fact, the effect seems to be a lasting one. In several cases, after cessation of treatment for some days, I found cystoscopically that there was an abundant precipitate of collargol over the entire mucosae of the vesical wall. I do not think we can obtain a similar lasting effect with any other means. And this without any irritation!

NERVOUS EXCITEMENT.—In these strenuous times, when the mental functions are frequently taxed far beyond their powers of endurance, insomnia is only too common. Under these circumstances, Peacock's Bromides will often prove the logical remedy. They do but compel sleep, like hypnotics; but, by allaying the existing nervous excitement, whether due to mental strain, worry or anxiety, they promote sleep in a normal manner. The patient awakens refreshed with a clear head, and does not suffer from unpleasant sequelae during the following day. The over-stimulation of the cerebral functions from alcohol yields promptly to the soothing action of this preparation, which will often prove to be a stand-by in cases of delirium tremens. In these patients in whom the commercial bromides should not be exhibited on account of their usual irritating action on the stomach already seriously affected, Peacock's Bromides will fully meet the requirements.

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may be much facilitated—and its safety assured—by lubricating the finger with



“K-Y” applied directly thereto from the tube, thus avoiding that contamination of the patient, or lubricant, which often takes place when—in the old way—the finger is thrust into an open pot of Petrolatum, with every probability of leaving the latter in septic condition for future use. “K-Y” Lubricating Jelly is non greasy, water-soluble, antiseptic and contains NO formaldehyde.

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It is a healthy sign that manufacturers of medicines—some of them, at least—are giving serious thought to the matter of standardization. It is cause for gratulation that the largest producers of medicinal products in the world consider the subject of sufficient importance to make it the basis of an expensive promotion campaign. We have in mind a series of announcements which have been published from time to time in practically the entire medical press of the country, the latest appearing under the significant title, "Who Is the Keeper of Your Reputation?" In their plea for greater accuracy in therapeutics, Messrs. Parke, Davis & Co. are doing vastly more than to exploit the products of their manufacture—they are rendering a lasting service to medicine. It is to the physician's own interest, and to the interests of his patients, to prescribe standardized preparations; to provide himself with the most trustworthy agents that the market offers. The best is none too good for his purpose.

THE THERAPEUTIC ACTION OF PRUNOIDS.—Prunoids produce their excellent therapeutic results by stimulating secretions, increasing the fluid content of the feces and only gently increasing peristalsis. They are extremely palatable, easily taken by even young children, and when brought in contact with the secretions rapidly disintegrate and produce their specific medicinal effect.

Battle & Co. of St. Louis have just issued No. 9 of their series of dislocation charts, which will be sent free to physicians on request.

THE MEDICAL ERA'S GASTRO-INTESTINAL EDITIONS.—During July and August, *The Medical Era* of St. Louis, Mo., will issue its annual series of issues devoted to gastro-intestinal dis-

eases. The July number will take up the usual bowel disorders of hot weather, and the August number will be devoted entirely to typhoid fever. These issues always attract considerable attention. The editor will forward copies to physicians applying for same.

ANTISEPSIS OF THE INTESTINAL CANAL. The griping pain and flatulence which accompany bowel and stomach complaints, particularly during the heated term, are readily overcome and controlled by the timely administration of one or two Antikamnia and Salol Tablets, repeated every two or three hours. The above doses, are, of course, those for adults. Children should be given one-fourth tablet for each five years of their age. When the attack is very severe, or when the disturbance is evidenced at or near the time of the menstrual period, we find it preferable to give two Antikamnia and Codeine Tablets, alternately with the Antikamnia

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and Salol Tablets. The latter tablets promptly arrest excessive fermentation and have a pronounced sedative effect on the mucous membranes of the bowels and stomach, and will check the various diarrhoeas without any untoward effect.

CARBOLIC ACID IN TYPHOID FEVER.

Dr. F. J. W. Maguire of Detroit contributes an interesting article on this subject to the July (1908) issue of the *Michigan State Medical Society Journal*. He bases his conclusions upon experience gained in the United States Marine Hospital service and in private practice. In part, he says: "I noticed when treating children with summer diarrhoea that shortly after giving them nitrogenous food in the form of milk or beef tea their temperature would always rise. I found that by giving these children a carbohydrate diet in the form of barley or rice water I rarely had a rise in temperature. With this observation in mind and remembering the results found in my autopsies following typhoid, I came to the conclusion that milk as a diet in typhoid fever should be eliminated. To further strengthen this theory I determined to carefully watch the results following the use of carbohydrate diet in the form of rice or barley water, etc. In eighteen cases I found the temperature rise following the milk diet, while there was no perceptible increase in temperature after taking rice or barley water.

"I need scarcely add that as a food in typhoid fever I have never since used milk. It is my practice, when I first see a typhoid fever case, to give plenty of sterile water by mouth for five to ten days or until the patient seems to require nourishment, then I use the peptonoids well diluted with sterile water, and the various flavored ices and gelatines. I condemn cow's milk, as it is a culture medium and the cause of a great deal of local irritation."

With reference to treatment the doctor states: "Having eliminated the milk diet with its terrible irritating effects in the already inflamed Peyer's patches, half the battle is won. This brings us to a consideration of the therapeutic aspect of this subject. In taking up the use of carbolic acid as the therapeutic agent in typhoid fever, I at first thought that I had discovered means whereby I could abort the disease. I commenced by giving half-dram doses of carbolic acid in a pint of sterile water as an enema. This I found very severe. The temperature would drop from 104 to subnormal and the patient showed signs of carbolic acid poisoning. The temperature would run from normal to 100 for a few hours, then resume its course. The kidneys were carefully watched in all these cases, as they are the filters by which the toxins are eliminated. In my next series of experiments I began with one drop of carbolic acid in a pint of sterile water given as an enema; if the temperature was not reduced I gave another enema in three hours with two drops, and so on increasing until I gave as high as ten drops or the tolerance of my patient allowed. My next series of experiments was with the drop method of injection. I mixed three to five drops of carbolic acid in a pint of sterile water, placed the solution in a fountain syringe alongside the bed and about a foot above the patient, and allowed about one hour for the solution to pass into the rectum. This was regulated by a gauge with a water-glass attachment which shows how fast the water drops. Through the reverse mucous currents this solution is carried throughout the intestinal tract and through this large area of absorption is carried to every tissue in the body."

In conclusion the author says: "I do not limit the use of carbolic acid injection to typhoid fever. I have met with phenomenal success with this mode of treatment in reducing temperature in pneumonia and gastritis and have car-

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A rational method of treating locally all forms of disease in which inflammation and congestion play a part.

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ried cases of acute appendicitis to a sub-acute or chronic form, thereby lessening the danger from infection at the time of operation. In these 138 cases reported here today the ages ranged from three to seventy-eight years. I gave no cold baths, but applied ice bags over abdomen, and one bath a day for cleanliness. Occasionally I gave a little strychnine, quinine and salol as indicated. Since adopting this dietetic and carbolic injection method of treating typhoid fever, I have treated 138 consecutive cases. This covers a period of about ten years. All these cases responded readily to treatment, notwithstanding the fact that many were advanced before treatment was begun. Four cases had had most profuse hemorrhages, all of which subsided when the milk diet was removed. I believe by these experiments I have made some very valuable therapeutic and dietetic discoveries, and have sufficient confidence in my treatment that I am compiling a work on the subject."

THE USE OF DRUGS.

To quote from Dr. William R. Gowers, who made an address on the use of drugs before a London medical society:

"We smile at the popular herbal remedies. But it is to these that we owe the majority of our most useful drugs. I cannot conceive a therapist surveying a list of the chief drugs on which we depend in our daily work—and do not depend in vain—without a sense of wonder and, perhaps, of humiliation. We disinfect our rooms with burning sulphur; and so men did before the time of Homer. We purge sometimes with rhubarb, especially when some subsequent astringent influence is desirable, and so did the old Arabians for the same special reason. The value of castor oil in its chief use was familiar, probably for ages, to the natives of the East and of the West

Indias before it was made known in Europe by a physician one hundred and fifty years ago. Aloes was employed in the same way long before the time of Dioscorides and Pliny. The knowledge of the influence of ergot in parturition we owe to the peasants of Germany, and the use of male fern for the tapeworm goes back to the old Greeks and Romans. The employment of mercury in syphilis by inunction and fumigation, which nineteenth century therapeutists regard with such satisfaction, seems to go back to the time of the Crusades, and it is said that its use can be traced in Malabar as far back as the ninth century. Podophyllum as a purgative we owe to the North American Indian. If we go through the list of all the drugs on which we most rely, we find a similar story. Even in the case of those which are the latest additions to our resources, we find that, with very few exceptions, their use arose from what we must regard as pure empiricism. It was by accident that the local anesthetic influence of cocaine was discovered."

And he might have added to this list quinine, which was also discovered by accident, and the use of the sulphate of copper in the treatment of granulated eyelids, which was known to the Egyptians 1500 years before Christ.

T. W. Bishop, M.D. Edith W. Carroll, M.D.
Supt. Asst. Physician.

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Associate Editors.

MODERN MEDICINE: CONTROL OF DISEASE BY PREVENTION.*

BY W. JARVIS BARLOW, A.B., M.D., LOS ANGELES, CAL., DEAN OF THE FACULTY AND PROFESSOR OF CLINICAL MEDICINE, LOS ANGELES DEPARTMENT, COLLEGE OF MEDICINE, UNIVERSITY OF CALIFORNIA.

The practical application of medical science—preventive medicine—is today the most useful field for the medical profession. On it depends the health of the individual, the home and the state. Our success in preventing disease depends on the use made of this knowledge. The present science has removed the causes and treatment of disease from inaccurate theories and pure empiricism to a foundation of veritable knowledge. Not that the structure on such a foundation is complete, but enough has been established to make us feel that the truth of other diseases, now uncertain, will be gradually added until the profession has a complete home in knowledge of the cause and prevention of all diseases.

The present truths have come through physiological and pathological laboratories, with the use of the microscope, and the development of organic chemistry, begun by Jenner with his

immortal discovery of vaccination in 1798, by the labors and brilliant achievements of Pasteur, 1858, establishing the germ theory of fermentation which led quickly to the germ theory of disease, and the success of Koch, 1876, in firmly establishing bacteriology as a science. At the same time Lord Lister's knowledge of septic conditions and the use of anti-septic surgery, laid the foundation of the present aseptic surgery. Since these master minds, the results have been such that today no physician's or surgeon's work can be properly achieved, in office or sick room, without the use of the microscope. To be able to use this knowledge to prevent human suffering and disease should be the highest ambition of the medical profession.

To successfully carry out precautions that scientific medicine gives, it is necessary to have the support of the public. Results cannot be obtained

*Read before the Arizona Medical Association at its annual meeting, May 19, 1909.

while, with the laymen, ignorance of real facts exists. The profession cannot do it alone, either by speaking or holding its council, it must teach and instruct.

There never was a time so full of interest in the decline of human suffering, or so ripe for the profession to give people facts about health and disease. The present year has been pregnant with articles of this nature which are greedily devoured by those wanting knowledge of the way to keep well. Not a newspaper that contains a health column which is not the most popular part of the sheet, and the best asset today that the regular profession has is the person who publishes articles on health or disease.

The recent scientific studies have given us a fairly accurate knowledge of the organs and the chemical changes that are constantly taking place, so that physiological chemistry is, in a less scientific way, talked of and considered by the interested lay people.

Never before in medicine has the value of diet been so well recognized in preventing disease. It must be admitted that in discussing diet and food, the fads and fancies of conspicuous persons have often held too much prominence, but from it often comes the suggestion of right living, how to prevent disease, and thirst for science and truth. Try to give your patients and the public real facts and never be ashamed to say you do not know. Is it scientific or true to state that proteid food is the sole cause of uric acid or gout, when there is good reason for stating that other food-stuff may influence this condition? In most cases it is not the kind but the quantity of meat or food that needs correction to bring the proper changes in metabolism and elimination.

In all disease there is a bodily power possessed by all and varying in individuals, known as resistance. In all men, the blood and tissue cells have more or less power of killing the germs of disease. When, by unhealthy living, eating or drinking, the resistance of the body is lowered, the germs of disease, by developing and multiplying, have the opportunity for resulting infection, which is shown as localized or general. If nature's laws could be followed in living, diet and drink, there could be no infection or disease.

Communities and crowded cities breed sources of infection—dirt, filth, improper air, inadequate disposal of sewage and garbage, and the resulting contaminated water, milk and other food, any of which may hold and multiply pathogenic microorganisms, and through such agents infection is introduced or transmitted.

In addition, it is now well recognized that the following insects carry or transmit the germs of disease—mosquitoes, fleas, flies, bedbugs, roaches, ants and lice. Experiments have conclusively shown that pathogenic organisms may remain some time in the digestive tract of the fly, may be carried on their feet and deposited in different places, that in the body of the mosquito the malarial parasite develops, that the mosquito is the only agent for carrying yellow fever, that flies and fleas transmit plague, and the plague bacillus may remain virulent in the stomach of bedbugs for a number of days. Such facts are showing the real danger of insects hitherto little dreamed of in preventing disease. The diseases carried or transmitted by insects are typhoid, dysentery, cholera, typhus, plague, tuberculosis, anthrax, sleeping sickness, relapsing fever, filariasis, malaria, yellow fever, Texas cattle fever, and dengue spotted fever. (Burge) (1).

In considering the infectious diseases carried by definite micro-organisms, it is interesting to note that the greater number of the different organisms were discovered between 1880 and 1890—years that gave us the bacillus of typhoid, of tuberculosis, of diphtheria, of tetanus, of cholera, and the coccus of pneumonia, the cause of leprosy a year previous to the decade, that of influenza two years after, and plague in 1894. With the knowledge of the cause, the prevention of the disease is already begun. Without too long a paper, it will be possible only to consider in some detail a few of the many diseases that may be prevented.

TYPHOID FEVER (bacillus typhosus, 1880 Eberth) and its sources of infection are well known, yet information of its transmission is accumulating and the problem of stamping it out is a greater task. The bacilli are disseminated by the feces, urine, unclean skin, discharge of abscesses and by breath or sputum when lungs or throat are infected. The most frequent sources are water, milk, food contaminated by water, oysters and flies.

It is now more a question of rural districts than of cities, and since we know that bacilli may be present in the urine for weeks after convalescence and may occasionally be found in the stools years after the attack, the control offers many difficulties. One such person in a rural district where there is improper sewage or impure drinking water has already caused more than one epidemic. It has been estimated that one-half of 1 per cent. of people harbor the bacilli. (von Tiling) (2).

In one month of this year came to Los Angeles from a small town in Arizona, thirty-three (33) laborers on the Santa Fe, who had contracted the disease there about the same time. Evidently these all came from one pre-

vious case. Boiling the water stopped further trouble.

Information about the disinfection of all discharges from patients, even those with atypical and uncertain diseases, should be made public, as too often in country towns and isolated districts the infection is spread through ignorance. For water supply be sure of purity, boiling, or sand filtration.

PLAGUE (bacillus pestes, discovered by Kitasato in 1894) has an especial interest for us on account of its occurrence on the Pacific Coast, and from the manner of its transmission it may occur at any time in the interior. With the development of oriental trade and the opening of the Panama Canal, the southwest must use all knowledge for prevention of infectious diseases.

It is possible that all animals will contract plague, but the rat is found the most frequent source of transmission of transmission. In Southern California one case in human was traced to the bite of a ground squirrel and the disease found in two ground squirrels. Besides rats and squirrels, Mears says (3) flies and fleas contract plague—the former may infect food, the latter transfer bacilli from place to place, and their bite produce direct infection. Bacilli may remain virulent in the stomach of bedbugs for a number of days; their bite is harmless, but if mashed on wound, infection may take place. Ants harbor bacilli for a number of days and may carry infection to different places from cadavers. Infection occurs chiefly through skin and may enter any abrasion or wound of skin and mucous membrane. As all secretions and excretions may contain the bacilli of plague, the necessity for isolation and careful disinfection is certainly plain if the disease is to be prevented.

Whenever possible, preventive treatment, by serum inoculation, is carried

on by the governments of Manila and Bombay. Inoculation is gaining favor there and when opposition to its use is overcome it may take its place along side of vaccination. Experience at present shows that immunity is conferred for two or three years.

The most modern methods have been in force in San Francisco and adjacent cities to obliterate the plague, and an experimental station, for the past eight months at the Los Angeles Medical Department of the University of California, has been investigating all rats and squirrels that could be obtained. The latter is a real department of preventive medicine, yet it was necessary that one case should appear before this was started.

Do not wait for plague to appear, but take measures to get rid of your rats, ground squirrels and gophers before that case appears, or you may be loath to consider what Mears says that "Experience thus far gained seems to indicate that when plague once gains a foothold it is not possible to permanently eradicate it."

MALARIA (ROSS, 1896.). The parasites are acquired by the mosquito, belonging to the genus *Anopheles*, from infected patients and conveyed by the mosquito in whose bodies they develop, to healthy persons.

Though the cure and prevention of this disease are well known, its ravages in many places continue. On account of your climate and present drainage, you may not be troubled with malaria, but in your neighbor state—Texas—Woldert (4) estimated the cost of malaria to the state in 1900 was \$33,320, assuming a day's labor at \$1.50. There is no need of such waste from a disease caused by the development and existence of organisms that can be absolutely prevented.

Efforts must be directed towards the destruction of the mosquito and a

changed condition of their breeding places. Standing or stagnant water are breeding places and menace public health. Stagnant pools should be drained or oiled, the marshes and banks of streams drained and changed by cutting so that they will not remain breeding places. Enclosed places may easily be fumigated and larvae destroyed by petroleum. Where ponds, pools or cisterns exist, the mosquito may be prevented by keeping goldfish therein or netting without.

YELLOW FEVER: As in malaria this disease is only conveyed from man to man by the mosquito. It exists only in the body of the patient and the mosquito (*Stegomyia fasciata*). Sanitary methods alone will not prevent yellow fever, as proved in Cuba in 1900, when yellow fever continued in spite of such measures, and the number of deaths from this disease was as high as 1000 a year.

The first correct method for the extermination of yellow fever was done by Walter Reed and his board in Havana in 1901. The measures were directed toward the destruction of all mosquitoes and were equally successful against malaria, so that in eight months of that year the last case of yellow fever occurred there. That to a slight extent within the last two years, yellow fever has reappeared in Cuba, Colonel Gorgas, chief sanitary officer of the Isthmian Canal Zone (5), says is due to laxity in methods used rather than to fault in principle that mosquito is the only conveyor of the disease.

Still greater is the triumph of prevention of yellow fever and malaria as seen by Colonel Gorgas' work in the Panama Canal Zone. Panama and Colon were the hotbeds of yellow fever and malaria, and the sanitary conditions were such that made former work on the canal impossible. Now these places are transformed into new cities

of health and life, so that through a department of sanitation, it might be said that this zone has become one of the healthiest regions in the world. This has been accomplished through a perfect organization, which has as its object the construction of the canal with all else subordinate, and which has under its supervision the construction, sanitation and governmental departments of the different places. Gorgas (5) tells us that at the end of five years' work the sick rate of laborers is less than that of similar bodies of men at home. Yellow fever has practically been absent from the Isthmus for two years and malaria entirely under control. Thus the whole success of the enterprise at Panama is due to the enforcement of preventive medicine.

TUBERCULOSIS (*bacillus tuberculosis*, 1882 by Koch) in the southwest assumes first place, owing to the influx of easterners with this disease. Unfortunately many of these are penniless and this means living under bad hygienic conditions. Every city in the southwest should have an ordinance providing for compulsory notification and registration, such as is provided in New York City and Edinburgh. No publicity of names should be given, but the mere fact of compulsory notification brings bettered conditions and allows health boards to fumigate when necessary. All objections to compulsory notification can be met by a wise board of health which must not be too arbitrary or interfere with personal liberty except in cases that are a menace to public health and must be isolated.

As it is absolutely certain that the bacilli in the sputa are the direct cause of spreading the disease, efforts for the proper care and destruction of sputa, from not only tuberculous people, but of all persons, must be continuously demanded. Spitting is a filthy practice and too often only a habit.

Infection from tuberculous cows is another source of the disease, and Ravenel has shown that the tubercle bacillus can pass through the intact mucus membrane of the alimentary canal without producing a lesion at point of entrance. Recent investigations and authorities make it decided that though the transmission of bovine tuberculous to man through meat and milk is possible, it is of less importance than the infection from human sputa.

What has been done the past few years in educating the public in tuberculosis and the successful organized effort in reducing the death rate from this disease, shows the importance of having the people understand causes and prevention. New York City, through education and the work of its Board of Health, has reduced the death rate 50 per cent. since 1880, in spite of earlier and better diagnoses. Education of the people removes fear of consumption and places the danger where it belongs—on the sputa.

What is needed in every community is a league or association for the study of the disease—a central dispensary which has auxiliaries in sanatoria for the curable cases, day and night camps for the selected cases, and a hospital for the far advanced cases—all working together with the board of health or central bureau.

A serious condition confronts us in the southwest which especially falls in the line of preventive medicine, such as confronted England when it was forced to take notice of the great problem of the unemployed. As Fullerton (6) pointed out, when in England they investigated the problem of the unemployed and came to treat the evil seriously, they found they had not to deal with the unemployed, but with the unemployable, that on investigating the unemployed, they searched in vain for

the healthy man out of work and found instead the degenerate, the physically diseased of mankind accumulating during the years of prosperity when the health of the worker had been neglected.

With our growing districts of the southwest, and the future overcrowding of our centers of population by people who in the vast majority of instances come here for some kind of physical infirmity in their families, should not our sanitary conditions be of the very best to meet this handicap? If an already inferior class is to fill our workshops, stores and factories, children from weakened parents to fill our schools, there must be vigilance on all sides displayed to see that such places are properly ventilated and have every hygienic condition or we shall face the problem of the unemployable, which is far more serious than that which is in our midst at present, the unemployed. I doubt not but that we are already facing such a problem in every community of health seekers, but it is not of our own making, but rather forced upon us. What is here intended is for the profession to use such efforts at their command for instructing the public in hygienic living and all that it involves, that the conditions may be arrested or the problem solved.

The prevention of VENEREAL DISEASES has in all ages baffled and embarrassed the profession and social worker. At the present time there is no subject in public health which is being more discussed in order that some measures may be taken to check its wide spread. Both gonorrhoea and syphilis are so common that it is estimated that 90 per cent. of adult males are affected, that 30 to 75 per cent. of women's diseases depend on this infection, and Dr. Matthews of Kentucky says that 85 per cent. of the abdominal operations for pelvic diseases of women are due to this cause, most of these be-

ing innocent married women, and a recent writer has even stated that 50 per cent. of ALL surgical operations are necessary as result of gonorrhoea.

From the present crusade against venereal diseases, it is hoped some wise measures for prevention may be adopted, so that a worse condition may not be started, that of concealment. Treat the evil as a disease to be prevented and cured, and not one of shame. Enforced publicity would not be wise or right. A state certificate of health before marriage is being urged, but this offers legal objections. As a fact, such a duty already is in the hands of every conscientious physician, to prevent marriage between people with venereal trouble. Legalized prostitution in countries where it is a law has not proved a success. The problem offers many perplexing and practical difficulties, for it is the infection outside of public houses, those of street and workshop, that spread most trouble.

I believe that education of the profession, medical students and public, as in other problems of prevention, offers the greatest hope, and the building and maintenance of institutions and dispensaries for the study and treatment of this disease, as is now done in tuberculosis. Acquaint ourselves with the truth of this infection and be more careful about the treatment. Instruct our patients of its dangers to others, and the great responsibility for its transmission. Give better instruction on prevention of syphilis and gonorrhoea in our medical schools, and by organized effort give the public the truths in a judicious and wise manner. Children at home and in public schools should be taught the hygiene of sex and given the facts of sexual life in a correct and moral way, instead of getting it in an immoral way from a playmate. It has been wisely said that the prevention lies

in "self reverence, self knowledge and self control."

SMALLPOX, once the most dreaded of all diseases, and the most prevalent, may now be entirely and completely controlled by vaccination. It has destroyed more human life than any other one disease, and left many of those who survived the attack physically deformed. That it is still epidemic in places of the Far East in spite of our present knowledge of prevention, is sad to read and know.

That anti-vaccinationists exist and are often actively planning, is due to ignorance of actual facts. When proper precautions are taken in vaccinating, scientific investigations have proved that no serious or dangerous consequences need be feared. Braddock (7) gives a striking example of what vaccination will do, and one has only to read this article to realize how an epidemic may be stopped. Smallpox broke out in a small place in China and in thirty days 145 children died of the disease among 500 infected. In a few days with a sufficient force of vaccinators, 4000 people were vaccinated, absolutely stopping the epidemic, and after the period of incubation was over, no more cases appeared. That place has never known smallpox since.

Compulsory vaccination should be the law of every state, and especially should this be enforced in the southwest, owing to the large number of unvaccinated Mexicans. Los Angeles has enforced such a law, and has only had two deaths in the last ten years. Both cases were imported, one of recent date came from Mexico. The patient and his daughter were both exposed at the same time, the daughter had been successfully vaccinated within six years, the patient showed no scar on the body of any vaccination. Vaccination will protect for a definite time, two years or for life, seven years is a good average.

Since such is the case, revaccination, after a definite time, should be included as compulsory in the law. To exterminate smallpox, universal vaccination and revaccination should be compulsorily practiced. Germany has carried out this idea under a compulsory law of 1874, and since has had no epidemic and is freeest from smallpox of all countries.

PNEUMONIA (*diplococcus* 1886) and INFLUENZA (*bacillus* 1892) are apparently increasing in prevalence. The mortality of pneumonia remains practically the same even under modern methods of treatment. Both are caused by the inhalation of infected air and the prevention offers serious difficulties since the micro-organisms are present in the saliva of healthy people, probably 20 per cent.

The best means of prevention must be directed toward isolating the patients, the destruction of the sputa, which is as important as in tuberculosis, and keeping the general condition of the system above par, that sufficient resistance may prevent an infection. The latter is done by avoiding excessive work, exercise, food and drink.

DIPHTHERIA (*Klebs-Loeffler bacillus* 1884) is greatly reduced in mortality, prevalence and severity, since the discovery of anti-toxin, and is often prevented in those exposed to it by an early dose of antitoxin. In preventive measures the members of a family in which it exists must be considered, since any one of these may harbor bacilli, and should be more or less isolated. Another difficult problem presents itself, that though the majority of patients may show an absence of bacilli after two weeks, the infective agent often remains in the throat until the end of the eighth week.

SCARLET FEVER, too, should always be quarantined, and the public should be taught the dangers of WHOOPING COUGH and MEASLES, which through improper

convalescence, become sometimes the forerunners of tuberculosis. The secret of scarlet fever seems not yet definitely proven, but more powerful microscopes may discover this secret and those locked up in measles, smallpox and cancer.

To cure acute and chronic infections, sera and bacterial products are on trial in many ways, and from present results which warrant their continued study, we may hope vaccines will be of such practical use as to bring infections under control, but at present, methods of prevention must first be pushed. Dock says (8) "Sera and vaccines are being thoroughly exposed as they should be, but the most important part of the treatment is the preventive one."

Other diseases than those mentioned are of importance in discussing prevention, but it is desired to give the remaining time to some essential measures in making prevention effective. To maintain the health of communities, the important features consist of proper amount of fresh air, an uncontaminated water supply, adequate disposal of sewage and garbage, clean supply of foodstuffs including milk, and, through rest and exercise, preservation of the individual to the highest standard of resistance.

The importance of a pure water supply need not be dwelt upon here, since our public is aroused to the necessity. There is need, however, to see that dwellers in our cities have pure air. A city should not allow the contamination of the atmosphere by smoke or noxious gases. With the increased use of soft coal and oil, a smoke ordinance limiting the amount of dark smoke, should be passed as has been done in Los Angeles. Such an ordinance cannot at first be drastically enforced by the profession, but by education and bettered conditions the public will demand its enforcement.

The ventilation and hygiene of our industries need regulation by law, such as has been done in England, where two dozen industries are protected and the workmen are safeguarded by proper ventilation of rooms and hygienic surroundings, and done in Germany where fifteen or more industries are so protected. In the United States there is almost no legal protection, but only such as some conscientious employers give.

In order to allow pure air to reach the people the street should be wide, and, in more crowded parts of cities, parks be provided. A great advance in prevention has been made in the recently introduced medical inspection of school children and the tremendous good given by the Playground Associations for children of the public schools and neighboring places, with trainers in physical exercise in attendance. Indeed, physical culture in fresh air is a pressing need of the day, and should be urged by all physicians who are interested in preventing disease.

In the proper supply of foodstuffs, milk assumes the first place of importance, on account of our infants and children. Thousands of infants die every summer from digestive disorders, commonly diarrhoea, which is due mainly to improper feeding of dirty milk. Such milk has high bacterial and filth contamination which is due to faulty and unclean dairy methods. Milk, combining warmth, moisture and food, is for bacteria an admirable culture medium which is favored by heat. Local epidemics of diphtheria and scarlet fever are proofs of this. A milk crusade is now raging along with other public health improvements, and justly so, since it is possible with some effort to obtain pure milk.

(1) Cows should be clean, healthy and tuberculin tested.

(2) Stables ample size, well ventilated, lighted, drained and kept clean.

(3) Milk houses screened, clean and with adequate facilities.

(4) Milkers healthy and clean.

(5) Milk cooled promptly and kept cool.

Certified milk has in California become a legally registered term, and only dairies that meet the right standard through inspection can use the name. It should not contain more than 10,000 bacteria to the cubic centimeter, should not be more than twelve hours old, and be produced under strict sanitary methods. It costs from 15 to 20 cents a quart, and necessarily is an objection as being beyond the reach of poor people. Measured by calorific value, by assuming milk has only one-quarter the value of flour, it makes milk sixteen times as expensive as flour. Though certified milk may have such an objection, the fact that certain dairies have so high a standard makes the other dairies produce better and cleaner milk within the reach of the poorer man. Any high standard of one class makes a better product from all. Very cheap milk means unclean milk.

It would be ideal if all milks that cannot meet the requirements of certified milk could be pasteurized at a central station under inspection and delivered within proper hours. If kept too long milk is dangerous. According to Rosenau, diarrhoea (9) has been caused by pasteurized milk that was more than 36 hours old, and such milk contained more than 100,000,000 bacteria to the cubic centimeter. On account of chemical changes there is some objection to pasteurizing as well as sterilizing, but either is better than consuming an unclean product.

A clean and safe milk can be secured by educating the people to the facts that illness and death are often due to dirty milk, and by demanding dairy laws.

Los Angeles has done much in obtaining milk regulations through ordinances, but Pasadena is even better, since she demands that all cattle be tuberculin tested and be repeated each year at the dairyman's expense, or the permit revoked. These ordinances and score cards are attached to the paper for those interested.

Sanitary reforms of the future depend much upon our individual effort as a profession. The people and public must be instructed in regard to what may be accomplished.

The profession has been in the past too modest about blowing its own trumpet. We are constantly trying unselfishly to diminish human suffering with little or no help from the public who benefit, and with often an unfortunate opposition from the public. This lack of help and co-operation, or the active opposition, depends on ignorance of real facts. There is no need to boast or criticize, but simply to fearlessly tell the truth of what is known and what is unknown about any diseases that may be prevented, and without being afraid to admit we do not know when such is the case.

Prevention of disease is shown in obstetrics when the doctor saves mother and child from all complications and extends into surgery by the early operations, to avoid serious and dangerous conditions or the later malignant development, and by aseptic operative technique to prevent infection of wounds. How much suffering and many lives have been saved by the early removal of the inflamed appendix. Were there no risk attended by the removal of the appendix in health, it is certain this would be a universal method for the prevention of a disease. Thus far the position is just that its removal should be undertaken in any abdominal operation when the appendix is easily reached, and during the in-

terval stage, when for some reason the operation was not performed at the first attack.

From Mears' studies of the Orient, it would seem that Japan is today taking the lead in preventive medicine. Besides her well-equipped and managed hospitals, her medical schools and teaching hospitals, her well-organized and active Red Cross Society, Japan has the pride of medical science in the Tokyo Imperial Hygienic Institute, founded and directed by Professor Kitasato, who so many years was an assistant of Koch. This Hygienic Institute is a governmental school devoted to the prevention of disease, through its laboratory and research work. It is open to graduates and practitioners of medicine, and fits these men for sanitarians and guardians of public health.

We need here such a school or institute that more of our professional men may be secured in the service of the state and city as trained sanitarians and professors of preventive medicine. Our state and cities are awake to the necessity of such service and if the public is to be entrusted to the physicians' care, such men should be trained not only in the cure of disease but in the methods and means of preventing it.

To insure the right protection in this matter for cities or the state, it is necessary that physicians use their influence with the legislature to have laws passed for public health, laws to prevent pollution of water supply, to insure pure milk and foodstuffs, and prevent the spread of infectious diseases. Such would mean that some medical men must be prepared to enter the political field for the good of the many, and it would seem from all that has been written in medical journals this past year and from the talks given at medical meetings, that the profession is now

aroused and alive to the fact that it must occupy a definite relation to the acts of the State Legislative body in matters pertaining to sanitary laws. That the bad laws passed have been due in great measure to the inactivity of our men in educating our representatives and legislative bodies, who often act from ignorance of existing facts. That the public may be interested and trust such labors, incompetent men and those placed in position for political favor, must be avoided.

Thayer, of Baltimore, in an oration on medicine last year, expressed the needs for furthering prevention and combating the spread of infectious diseases.

"First—An enlightened public.

"Second—A conscientious and united medical profession, ready to do its work as individuals and especially to work in a spirit of cordial co-operation.

"Third—Central and local boards of health, which are under the direction of trained sanitarians." (10).

The importance of local and central boards of health cannot be too strongly emphasized, and in connection therewith every state should maintain an investigating laboratory where sputum cultures and so forth may be sent for examination. Not only the city, but the country physicians should have such advantages.

In California there will soon be a sub-station of the State Laboratory established at Los Angeles, for the benefit of the southern counties.

Each county society should have its public health commission, acting and co-operating with the state public health association. Such commission to consist of an executive committee of five, elected at an annual meeting, and co-operating with the health departments and lay organizations in all educational matters of preventing disease.

At the last meeting of the California

Public Health Association, which met at San Jose on April 19, 1909, Dr. Ewer showed the following results in the cleaning up of Oakland by such an association: In 1907 there were 482 communicable diseases and 1530 non-communicable diseases; in 1908, 298 communicable diseases and 1450 non-communicable diseases.

The subject of preventive medicine is such a tremendously wide field that it has been here possible only to touch upon some of the important features, and though the problem for making it effective is more or less a difficult one, the most important feature, after all is said and done, is—Education.

The future of our people depends on the habits and life of its individual members—teaching clean, regular, normal habits, begun early in life by the parents and the home.

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PULSE COUNTING BY NURSES.*

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Honest confession is quite as good for a doctor as for a patient in extremis, and at this moment I utter the solemn truth when I tell you that my pulse indicates a high fever and my heart is beating like a trip-hammer. Diagnosis: Just plain scare, that's all. However, I have the consolation of knowing that you will not be looking for an orator in an ordinary doctor, hence will not be expecting any extravagant word painting. What I have to offer is simply a few parting words on behalf of your doctor friends who know you so well that it were more than unkind to let you leave without an expression of appreciation, a farewell word of congratulation.

While I am about to take the liberty of making a few suggestions along lines that I regard as essential to your becoming first-class nurses, it is not my intention to surreptitiously administer

a good-bye lecture on your professional and social duties for all time to come. It is enough that you have been lectured and warned and cautioned by doctors and superintendents for the last three years; and now if you are not sufficiently well-equipped to achieve professional success there is nothing I can say at this late day to cause you to do so.

First of all, I would like you to bear in mind, always, that you are members of an established and well-recognized profession, and that you owe to that calling the best that is in you, just as is required of any professional man, be he lawyer, doctor, or preacher, to give his clientele the best that is in him.

Remember, please, that the distinctive degrees of success among nurses are rated quite the same as with professional men, first-class, good, moderately good, and so on down the scale; but

*Address on behalf of Faculty at the Eleventh Annual Commencement of the Training School for Nurses of the California Hospital.

we have nothing to do tonight with the ungraded kind, so we omit all reference to what the racing fraternity would term the "also rans." Your profession has been rendered honorable and practically indispensable to the successful practice of medicine and surgery by just such graduates as yourselves. The great majority were no whit better trained than you, and the day they received their certificates no more was expected of them than will be expected of you. We are assured that the percentage of first-class nurses among your number will be as high as in any preceding graduating class of this school or any other in the country.

I would suggest that you do not strive to acquire a reputation by the frequent recording of temperature and counting pulse. Of course, a little of this is necessary for the doctor's observation, but I cannot impress upon you too strongly how far more requisites are a clean and tidy room, ditto bed, with well-shaken pillow, fresh air and no draughts, a cheerful smile and encouraging words. These simple prescriptions often do more good than doctors, medicine and all the records you could possibly keep. To be a first-class nurse you must not only love your work, but love to work. There is no place at the top for the sloths. A first-class nurse can never be enrolled a member of the eight-hour-doff-your-cap-and-apron union.

It is important to remember that in addition to all your education and experience at the training school you have not only your patient to please, but the entire family from the heads of the household down through every member of it to the cook in the kitchen, be he or she white or black, European or Oriental. And the way to accomplish this is by thoughtfulness and tact. Your first consideration in the home is the good of your patient, and when

she and her family once see that this is your purpose your conquest is made. Don't make extra work—your business in the home is to relieve the other members of the family, not add to their burden of work. And this thoughtfulness extends even to the kitchen. So if you would have your patients and their kindred serve and respect you, and—not last nor least—recommend you to others when a nurse's help is needed, remember to employ tact.

Permit me to give a few "don't" hints, to you who have determined to become nurses of the first class. They may save you from many a sigh and regret in the future, if properly treasured:

Don't be a gossip, or news-carrier, or a teller of the terrible things you have seen or heard about.

Don't allow yourself for one moment to do anything short of your *very best* work.

Don't fail to be just as neat and cheerful and good looking as you can be, short of vanity. A trim, wholesome-looking nurse in a sick room is half the cure.

Don't keep any company for whom you have to apologize.

Finally, always speak well of your profession and its members, envying no one the success he or she may have attained.

There! I promised that this should not be a lecture—that is, not a long one—and here I find I have almost let my talk grow into a little sermon. But I am sure you and your friends who are here to extend to you the cordial hand of congratulation will understand the spirit in which it is all uttered. I am equally sure that I shall not be misunderstood if I remind this audience of friends that if any should be so unfortunate as to have sickness enter the family, and a nurse is not an unattainable luxury, whether of this or any

other class, let it be not forgotten that the laborer is worthy of her hire and, too, that the bedside care of the sick is one of the most responsible, as it is likewise one of the most fatiguing positions, one is called upon to fill.

The family is prone to throw all the responsibility and care of the patient upon the nurse. Time and again have doctors had occasion to note this tendency. Day in and day out and for many nights in succession the sick room is wholly abandoned to her tired presence while the relatives are enjoying their full quota of sleep, apparently saying by their attitude, "That is what she is hired to do." I do not say all do this way. I am sure none of you present this evening ever did or would, but too many are so inclined. If you ever know of anybody so heartless or thoughtless, quietly remind such that a nurse to do good, *safe* service must, like a railroad engineer, have certain hours allotted to her for rest and fresh

air. It is imperative both for her and her patient.

And now, in conclusion, it is not only due you, but it is my great pleasure also to assure you that your faithful services, your unvarying obedience to and compliance with all the requirements of the training school of the California Hospital have endeared you to us and entitle you to the sincerest congratulations of the Matron, her assistants, and all the doctors connected with the Hospital. You can never be a nurse simply as an individual. Always will you be a member of a great and honorable profession—an alumnus of this Training School which has graduated many truly excellent nurses. I need not say "Do nothing for which you will esteem yourself less," but will say, do everything that will uphold the dignity of your profession.

On behalf of the Faculty I most cordially express to you our best wishes for your professional success, your health and your prosperity in life.

SOME CONSIDERATIONS WITH REGARD TO THE PRESENT POPULAR INTEREST IN PSYCHO AND RELIGIO-THERAPY—WHAT LESSONS SHOULD IT CONVEY TO PHYSICIANS?

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While psychotherapy is as old as medicine, and has been practiced consciously or unconsciously, by physicians and others ever since man began the attempt to heal at all, this time-honored measure, though perhaps in somewhat altered attire, has of late been paraded before us as a discovery new and startling. All accounts which have come down to us, show that our predecessors did not neglect this important adjunct, and we know that accessories favoring psychical effect have always played an

important part in the treatment of disease, especially with those who combined the functions of priest and physician. In fact it is almost impossible for a physician to avoid practicing psychotherapy to a greater or less extent, even should he desire to do so, and those of our number who have best known how to exert a suggestive influence upon the minds of their patients have achieved the greatest success, specially in the treatment of functional disorders. Witness the late Prof. Char-

cot, and our own Weir Mitchell. Our whole process of education is built up largely upon suggestion, for the best teacher is he who has the power, not only of stating certain facts, but of stimulating his pupils to think, that is to call up and fit together into an orderly fabric the memories contained in the subconscious mind, the resulting ideas being traceable to the original suggestion. Upon what does our moral education depend but upon a constant series of suggestions as to the relative results of good and of evil doing, which are conveyed to us directly and indirectly, and is it any wonder that those who are exposed constantly to suggestions in which evil preponderates should be defective in moral sense? While something—just how much we do not know—depends upon hereditary constitution, experience points to the method of early removal from unfavorable surroundings and placing in a medium where suggestions for good abound to the end of preventing crime, as superior to that of stern and inexorable punishment after the fact. In this connection the correction as far as possible of defects leading to impaired health has proved a most important matter. Now while no educated physician believes that organic disease can be cured by psychic influence alone, none will undervalue the importance of a cheerful and hopeful frame of mind upon the part of the patient, or will deny that this may prove an important adjunct in the accomplishment of a cure. Blessed is the individual who in the presence of suffering is sustained by either religious or philosophical views. The religious impulse is one of the most primitive in the nature of man. Few there are who do not hold, and who are not influenced by religious views of some sort, and with this fact physicians must reckon. This factor was not neglected by the physicians of former times. Since the pathfinding

labors of Morgagni, however, medical views have become more and more based upon the relation between anatomical structure, normal and pathological, and function, normal and perverted. The German school which has so much influenced prevailing opinion having been built up especially upon the magnificent discoveries along these lines which its members have made. With some slight justice, its adherents have been accused of caring more to establish the connection between the symptoms of disease, and pathological changes in the body, than to relieve the sufferings of the patient, in the study of the physical basis of disease to have grown grossly materialistic and to have lost interest in the hopes and the higher aspirations of the human mind. To the prevalence of this view, however, unjust it may be as applied to the great mass of the medical profession, to the feeling that the doctor of today is lacking in sympathy with them, and withal to the partial passing of the family physician who held a position so close to the hearts of his patients, may we not attribute the reaching toward supernatural influences and the attraction toward those who profess superior knowledge of the ways of the Supreme Being and to enjoy with Him special favor, which seems so widespread even among the intelligent classes of society? That physicians as a whole have lost sympathy with their patients or are entirely engrossed in material affairs, the writer is not willing to admit. The study of medicine is distinctly ennobling and uplifting, and while the educated medical man is perhaps unwilling to be bound down by narrow dogma, he yields to no class of the community in true religion and in human sympathy.

Our knowledge of the structure and functions of the nervous system is due almost exclusively to the investigations carried on by physicians, and to the genius and hard work of such men as Kraepelin, Ziehen, Sommer and others

psychology mainly owes its transformation from a subject of academic interest to a living science, having practical bearing upon the affairs of our daily life. It has taken the rise of the Christian Scientists and their congeners, however, to bring home to the mass of the medical profession that mental phenomena and their intimate correlation with bodily function constitute a subject with which it is necessary to be conversant, and that much work in this line has already been done, under the ægis of the regular profession. It has been the same in the past with hydrotherapy and the other physical measures of treatment, the medical profession having failed to appreciate their possibilities until they have been forced upon it from without, even today some prejudice against them remaining, on account of their exploitation by ignorant and unscrupulous persons. On the whole the passion for mental healing, crude and misguided as its manifestations may be, would indicate a craving for real advance, and if the medical profession, rising to the occasion, is stimulated to co-operate in the work of its specialistic colleagues, good may come out of it. Without understanding of normal process, morbid ones must remain unclear. It is, however, the class of physicians specially interested in abnormal mental manifestations the psychiatrists who have furnished the chief influence in building up the modern science of physiological psychology, and in the relegation to a secondary place of the metaphysical views which long kept the pure psychologists out of touch with those laboring in the other branches of science. It is only of recent years that collaboration between these two classes of workers has been accomplished. The deduction to be drawn is, that we must add to the medical curriculum a new study; that of normal and pathological psychology, at least in elementary form. This has

been done by Dr. Morton Prince, at Tufts College Medical School, and a small beginning has been made here in Los Angeles, by incorporating in the course in general therapeutics at the Los Angeles College of Medicine, University of California, some lectures upon the basis of psychotherapy. It is only by recognizing what is of use in the treatment of disease, regardless of whence it originates, that the medical profession can keep up its standard, and while the attempt to build up psychotherapy upon a sound basis, originated independently within our profession, it can hardly be denied that the wholesale defection of their patients to the absurdities of Christian Science has specially brought the matter home to practitioners in this country. The methods of psychical analysis, especially by means of the study of the associations, initiated by Freud and elaborated by Jung and the Zurich school, tedious as they may seem, and so far furnishing few positive indications, at least merit attention as evidencing an earnest attempt to find a scientific basis for the application of psychotherapy. The study of the nature and course of the mental processes which has long been going on, and especially the researches upon the extent to which they are influenced by alcohol and other drugs, which have been carried out by Kraepelin and under his inspiration—published chiefly in his *Psychologische Arbeiten*—have not failed to bear fruit, and besides effecting a revolution in the methods of modern psychiatry, have furnished more weighty arguments against alcoholic abuse than the rabid denunciations of a host of ill-informed people.

As to the association of the medical and the clerical professions in the healing art, as exemplified in the *Emanuel Movement*, while few physicians will regard it as a necessary step, there are in it possibilities both for good and for evil. From properly trained intelligent

and conscientious clergyman, like Dr. Worcester and his associates, the writer believes that physicians may secure considerable aid in the management of a certain class of cases, but in the hands of the scientifically ignorant, dogmatic, and also, not always charitable or honest-minded cleric, or in those of the religious charlatan, what can be expected? It is likely that the practice of religio-therapy, can be limited to men of the first class? After all we must be guided in the matter, by what seems to us the best interest of our patients.

Those who are familiar with the examination into the mental make-up and methods of thought of nervous and psychopathic patients, are well aware how time-consuming a process this is, and there are few physicians in every-day practice who have the time to devote to the long conversations, and perhaps letter-writing, which the "psychical analysis" and subsequent "moral treatment" of such cases necessitates. A

tactful clergyman, well informed upon the subject, in touch with the religious feelings of the patient and with plenty of time at his disposal, may be found a valuable ally in such a case. The writer remembers years ago having heard, a former teacher—one of the great neurologists of the day—say that he believed in carrying out any measures which he thought might benefit his patients even to sending them to a "Faith-curist." We are confronted by an actual condition, and cannot afford, contemptuously to dismiss the subject. Rather will it profit us, to attempt, by making search at the root of the matter to find out wherein we have been neglectful, and entering upon the study untrammelled by dogma, may we not hope to dissipate some of the clouds which envelope prevailing conceptions with regard to the higher psychical functions, or at least to keep their study upon the plane of science and of common sense?

605 Pacific Electric Building.

DIAGNOSIS OF INFLAMMATIONS OF THE COLON AND APPENDIX.*

BY DUDLEY FULTON, M.D., LECTURER ON MEDICINE, LOS ANGELES COLLEGE OF MEDICINE OF THE UNIVERSITY OF CALIFORNIA.

Acute Appendicitis:—Acute appendicitis is correctly diagnosed more frequently than any other inflammation of the belly. It presents a syndrom of symptoms so typical that it is rather exceptional for it to be overlooked at the bedside. Occasionally some other acute abdominal disease gives a clinical picture that confuses even the most experienced surgeon. Ordinarily such conditions require surgical treatment, which fact restores the surgeon's diagnostic self-respect which he has lost when the opened belly reveals an acute gall bladder, a perforated duodenal ulcer, or a salpingitis.

We will not discuss the typical right side pain, tenderness, rigid rectus; nor

the fever, pulse, vomiting and constipation of classical appendicitis. This syndrom of symptoms, when typically grouped, is sufficiently convincing to even the most inexperienced.

It is the atypical case where judgment is most needed, if we are to avoid, on the one hand, fatal delay in surgical treatment, and on the other hand, the finding of a normal appendix. While the removal of the latter may not be a distinct loss to the patient, it is more or less depressing to the surgeon's or the internist's diagnostic vanity.

To our mind the pulse is the safest indication of a dangerous belly lesion, whether in appendicitis, or in any other

acute abdominal inflammation. Given a pulse which is increasing in frequency in a suspected acute appendicitis, alarm should be maintained even though the fever-curve were falling, the pain disappearing, and the patient apparently improving.

Fever is one of the most constant symptoms, it being never absent, especially at the beginning of an attack. It is, however, an unworthy guide as to the seriousness or the probable outcome of any given case.

Rigidity and pain are invariably present in acute appendicitis, or at least they have never been absent in any case personally seen.

Nausea and vomiting are rarely absent, and one should hesitate to make a diagnosis of the disease without tenderness somewhere in the ileo-cecal region.

We personally regret that McBurney ever discovered the point that bears his name. The exquisite tenderness of an acutely inflamed appendix is over the inflamed organ. Since this may assume any variety of positions and directions, the tenderness may be above, below, to the right, or to the left of McBurney's point.

Absence of McBurney's symptom has caused many cases of acute appendicitis to be diagnosed as salpingitis, gall-bladder inflammation, etc., etc.

Of the acute abdominal lesions which may be confused with appendicitis, acute cholecystitis, with its pain, fever, tenderness and vomiting, should be mentioned. Ordinarily no confusion will exist. Jaundice if present, the pain being epigastric and radiating to the right back and shoulder, the location of greatest tenderness in the epigastrium, the vomiting giving greater relief to pain than in appendicitis, and the early history will generally give the necessary clues to gall-bladder inflammation. In both appendicitis and acute cholecystitis, a tumor is usually pres-

ent, but in neither may it be palpable, because of rigidity of the rectus.

Typically, in cholecystitis the symptoms are epigastric; in appendicitis, abdominal.

More difficult to differentiate are the acute inflammations of the pelvis in women—the differential diagnosis of which cannot be adequately attempted in a brief paper. It would seem, however, that more painstaking and repeated external and vaginal examinations and more carefully obtained anamnesis, should eliminate doubt from the diagnosis in many cases in which the surgeon operates first, and makes a diagnosis last. Only recently we saw a supposed case of appendicitis in a woman whose pelvis had not been examined by the attending physician. McBurney's point being the most sensitive area, seemed to have fixed the physician's mind to appendicitis, and away from the acute salpingitis which was causing the mischief.

Acute obstruction of the bowels, especially if seen early, should not be confused with appendicitis or any acute inflammation of the belly, because of the absence of fever.

A perforated duodenal ulcer, if preceded by typical symptoms, viz., pain at a definite time after eating—two to five hours—which is relieved by anything that removes the acrid, irritating gastric juice from the ulcer area, such as vomiting or soda, will scarcely ever be confused with acute appendicitis. But in those old cases, where adhesions complicate the disease picture by perigastritis, pericolitis, perichilecystitis, or periduodenitis; and in cases of perforations which have never been preceded by dyspeptic symptoms, the condition may be easily confused with acute appendicitis. Here again the occurrence of sudden pain—which is the most constant symptom of perforation of any of the abdominal viscera—is unaccompanied by fever. All the other symptoms of

acute appendicitis may be present, so that if the physician does not see the case until fever has developed from perforative peritonitis, it may be impossible to make the correct diagnosis.

Acute Pericolitis:—Acute pericolitis, sigmoiditis, or perisigmoiditis, is characterized by the same symptoms as typhlitis or of any phlegmonous inflammation of the wall of any part of the intestine. Three cases have been personally observed which produced clinical symptoms, which, had they occurred in the right iliac-fossa, would have been considered appendicitis.

The infection is generally the colon bacillus, and the source of its origin, the intestinal contents.

Phlegmonous inflammation of the colon induces a localized peritonitis with extraordinary tenderness, a sausage shaped tumor running the direction of the colon, fever, tenderness, constipation and vomiting. Abscess formation occurred in one of my cases, which was relieved by incision and drainage. The abscess may perforate into the intestine, externally, or intraperitoneally, in which latter case general peritonitis will develop.

Several clinicians and surgeons have reported such cases the past year. The sigmoid and perisigmoid tissues are usually the parts of the colon involved. We have seen no cases reported of the transverse colon or the hepatic flexure, but we see no anatomical reason why the ascending colon and its flexure might not be the seat of the inflammation, in which case it would be very difficult to differentiate from acute typhlitis or appendicitis.

Acute Typhlitis:—This brings us to the very interesting question—the differentiation between acute typhlitis and appendicitis.

We approach the question in the presence of surgeons, with considerable fear and mental anxiety as to what the discussion may bring forth, but we believe

there is distinct loss in the elimination of typhlitis as a clinical entity.

From a considerable experience with chronic colitis, we can say that we have seen several cases in which the process was more or less confined to the transverse colon, most of the cases to the descending colon and sigmoid, and a few to the caecum and ascending colon.

The localization of chronic colitis to the right colon has strengthened my belief that frequently that which is diagnosed as acute appendicitis is acute typhlitis, the treatment of which, is, of course, medical.

I am quite sure I have seen such cases, where the opened belly showed marked inflammatory reaction of the caecum, with no microscopical evidence of inflammation or disease of the appendix; and we have small respect for an appendix which requires microscopical demonstration of its departure from virtue.

We are, however, strong in the belief that the differentiation between acute appendicitis and acute typhlitis should be attempted only with the greatest reserve, and that doubt in the diagnosis should weigh in favor of surgical treatment.

In acute typhlitis the pain is of a dull character. Its location is apparently superficial and extends upward along the ascending colon. It is relieved by heat, by a movement of the bowels, or by the escape of flatus.

The tumor is usually sausage shaped, corresponding to the caecum or colon. If diarrhoea is present, as is usually the case, no tumor is palpable.

Fever is mild or absent, corresponding to the temperature of a co-existing enteritis and being about as is found in summer diarrhoea.

The pulse is only moderately accelerated.

The bowels are rarely constipated. In typhlitis, diarrhoea—which is rare in appendicitis—is the rule.

In acute appendicitis the pain is intense, of a cutting or boring character, radiating in all directions. It is increased by pressure or by hot applications, but is relieved by the ice bag.

A tumor is usually present, about as large as the fist, but it varies in size and is extremely painful.

Fever is generally high, and a chill is a common early symptom.

The pulse is, as a rule, of a distinct febrile type, and increases in frequency with the gravity of the case.

There is usually constipation.

I have to the present time never regretted conservative treatment in a case in which the differential diagnosis was strongly in favor of typhlitis.

Before leaving the acute inflammations of the colon and appendix—and we have from lack of time neglected the discussion of acute diverticulitis—we should speak of the diagnostic value of the leukocyte count.

There seems to be no dissenting voice as to the value of the examination of the blood in surgical conditions of the abdomen. Sonnerberg (Archiv. f. Klin. Chir., 81, II.) concluding that the degree of leukocytosis is not so important because it is an expression of suppuration, but because it is a guide to "the reaction of the organism"—a low count pointing to failure of the individual to resist the action of toxins.

Sondern (*N. Y. Med. Jour.*, Jan. 26, 1907) insists especially upon the value of the differential leukocyte count, when taken in conjunction with the regular leukocyte count. He holds that the increase in the number of the polymorphonuclear cells shows its degree of "toxic absorption," whereas the leukocytosis indicates the resistance of the individual toward this absorption.

Chronic Appendicitis.—In chronic appendicitis we approach a clinical condition much more difficult to diagnose than the acute disease.

First of all it should be said that its symptoms are frequently ascribed to all manner and sorts of things—from floating kidney, dilatation of the stomach, disturbances of menstruation, uterine displacements, etc., to hysteria and neurasthenia.

A history of acute or recurrent attacks of appendicitis with pain, rigidity, vomiting and fever, makes the diagnosis of recurrent or chronic appendicitis usually certain. But more difficult to diagnose and to clinically appreciate is an old appendix bound down by adhesions, whose pain is indefinite and is often entirely absent in the ileocecal region.

The Mayos have shown often enough that such cases sometimes show more gastric, than intestinal symptoms, owing to reflex pylorospasm; and the experience of other surgeons has been that such an appendix may be the cause of many symptoms which they had attributed to quite different belly and pelvic lesions before operation.

In examining cases that have obscure abdominal symptoms we should, therefore, always keep in mind the possibility of chronic appendicitis. But to suspect chronic appendicitis and to make a diagnosis of it are two quite different things, and we should hesitate to diagnose chronic appendicitis without a history of acute or recurrent attacks, or unless there was irregularity of the bowels—constipation, or diarrhoea, or the two alternating—and still more important, pain, tenderness to pressure, and slight rigidity, which are *almost invariably present* in any form of appendicitis.

Chronic Colitis.—Of the chronic inflammations of the colon we will discuss only colitis, and will refer only to adhesions of the colon and of the possibility of their producing most perplexing abdominal symptoms.

Without a knowledge of the nature of the disease known as colitis, it is diffi-

cult to understand the principles upon which its diagnosis is based.

Very briefly, Nothnagel taught—and his views are still followed in most of the literature—that membranous colitis is a secretory neurosis of the large bowel, that it is usually a local manifestation of a general neurasthenic condition.

Von Noorden and Cohnheim have been foremost in presenting an entirely different view, viz., that chronic colitis is in reality a simple, chronic, reparable, superficial catarrh of the colon, which accompanies chronic constipation.

Therapeutic experience has long shown that the attempt to cure membranous colitis by treating the nervous system is forlorn of hope—on the other hand, that it disappears as soon as constipation is cured, which fact is the best refutation of the theory of its nervous origin.

Four symptoms establish, in the majority of cases, the diagnosis of colitis: Constipation, mucus, flatulence and pain. In addition there is a large number of reflex nervous and dyspeptic symptoms, dyspnea, palpitation of the heart, etc., etc.

The cure of the constipation is followed by a disappearance of all of these symptoms.

Because of the large variety of reflex symptoms in colitis, the clinician's attention is wrongly diverted to other organs, more frequently perhaps than in any other belly condition.

We have studied 158 cases of colitis the past year and a half. Most of the cases had suffered from the disease more than a year, and several for twenty years. The diagnoses which had been advanced in this group of cases were certainly variegated; and in some instances the same patient had been treated for a good many different things. But the two most frequent diagnoses in these cases of colitis were "stomach trouble" and "neurasthenia."

None of the organic diseases of the stomach produce symptoms which should be confused with the symptoms of colitis, for the former are always dependent upon the quality and quantity of food eaten, while the symptoms of colitis are dependent upon the condition of the bowels.

The pain of organic stomach disease—ulcer for instance—occurs regularly, one to four hours after eating. The pain in colitis is independent of eating and is present immediately after or before eating, when the stomach is full or when it is empty. It is dependent upon constipation and the accumulation of gas and mucus. Vomiting relieves stomach pain; a bowel movement or the escape of flatus, colitis pain. In stomach conditions the patient belches gas. In colitis he expels it from the bowels, etc.

In differentiating colitis from neurasthenia we attack the ideas promulgated by Nothnagel and followed generally in clinical practice—that colitis is a secretory neurosis of the colon, and that treatment of it should be directed largely to the neurasthenic condition of the patient.

It is a very striking fact that nearly every case of chronic colitis has a large variety of nervous and neurasthenic symptoms, but that these are the result of the colitis and not the cause, is shown by the fact that the neurasthenia disappears with the colitis and spastic constipation. (We trust we will not be considered too radical if we parenthetically state that we believe that the term "neurasthenia" will be forced to oblivion with advance in diagnostic knowledge.)

As said above, the presence of the colitis syndrome—constipation, mucus, flatulence and abdominal distress, and the healthy condition of the organs reflexly disturbed (as evidenced by the careful physical examination), should

point clearly to the colon as the source of trouble.

Given nervous, dyspeptic, cardiac or abdominal symptoms which are reflexly caused by colitis, it will be found by a careful anamnesis that all disappear like magic after catharsis has emptied the colon of stagnating faeces, mucus and gas.

This is the crucial diagnosis point of chronic colitis—*its symptoms are present when the bowels are constipated, and absent when the bowels are normal.*

This point carefully established by the clinical history, which is of considerably more diagnostic importance than the laboratory, will differentiate colitis from all other diseases of the abdomen. *In no other disease are the symptoms so dependent upon the condition of the bowels.*

A right-sided colitis may be very difficult to differentiate from chronic appendicitis, chronic cholecystitis or duodenal disease. Any of these diseases may present the most atypical and bizarre symptomatology, which only prolonged observation will correctly interpret. Often again colitis may exist simultaneously with organic gastric disease, chronic catarrh of the biliary passages, chronic appendicitis, etc., when

it will be necessary to resort to the therapeutic test to arrive at the diagnosis. Colitis, particularly if right sided, may resemble chronic appendicitis, the Dietl's crisis of a prolapsed kidney, chronic gall-bladder disease, etc., etc. The opposite is true, any one of these may produce a symptomatology which is hard to differentiate, if they occur in a person with mild colitis. The treatment of colitis will, in uncomplicated cases, be followed very soon with relief of symptoms. Whether improvement occurs or not usually estimates correctly the part which colitis has taken in the symptomatology of the case.

In looking over our case records, we find that we have treated 158 cases of chronic colitis. The relation of chronic constipation to colitis is strikingly shown by the fact that of these, 144 had suffered from constipation. Four had diarrhoea. Seven had alternating constipation and diarrhoea. Eleven had been operated for appendicitis, either before or while they were under my care. Two of the cases had the symptoms of acute duodenal ulcer, and seven of gastric ulcer. Twelve had gall bladder complications—three with gall stones and nine with chronic cholecystitis. All of these were operated.

DIAGNOSIS OF AFFECTIONS OF THE BILIARY TRACTS.

BY REA SMITH, A.B., M.D., LOS ANGELES, CAL.

The biliary tracts are subject to many affections, some of which present so typical a group of symptoms that their value cannot be misinterpreted, others occur so rarely that a discussion of their symptomatology, in an evening of this length, would be unprofitable. I have limited myself, therefore, to the commoner conditions that present difficulties in diagnosis; acute cholecystitis, chronic cholecystitis and cholelithiasis.

Acute cholecystitis, although variable in its symptomatology, usually exhibits a few cardinal symptoms. Pain in the epigastrium accompanied by nausea, vomiting and rise in temperature and a rigid right rectus muscle and tender gall bladder, sometimes papable, form a picture quite distinctive of acute gall bladder infection. If added to this we have the pain radiating to the right scapula or right shoulder and a history of pre-

vious like attacks, with perhaps a mild degree of jaundice, the picture is complete.

It is often difficult to differentiate from acute appendicitis, especially if the gall bladder extends low into the abdomen and the tender fundus presents in the right iliac fossa. This tumor in the region of the appendix, however, is continuous with the liver and moves with it in respiration, the pain is more limited than in early appendicitis and usually referred to the back. An area of cutaneous hyperalgesia in the right upper quadrant of the abdomen points to gall bladder infection, as of course does jaundice, when it is present. Acute inflammation of the gall bladder may occur during the course of any of these infectious diseases, especially those involving that part of the alimentary tract drained by the portal circulation.

The symptomatology of *chronic* cholecystitis has, however, a wide range and may present many difficulties to the most thorough examiner and most careful diagnostician.

The pathology varies from a mild infection with wide open ducts, which gives little or no distress to the patient, to a chronic sclerosed condition of the gall bladder with the ducts wholly or partially occluded accompanied by cholangitis, chronic hepatitis, chronic pancreatitis and pericholecystic adhesions, giving the distressing picture of neglected gall bladder infection.

The differentiation of simple cholecystitis from cholecystitis accompanied by stones is, I think, impossible in the absence of "gall stone colic", and I may add, that the most convincing symptom of gall stone colic is the discovery of a gall stone in the stool. Luckily, however, this distinction is unnecessary as the symptoms are all caused by the cholecystitis whether or not we have stones, except at the time that a stone is *actually* attempting to pass through the ducts.

The class of cases which we have principally under consideration are those which do not have these typical attacks of gall stone colic, because the diagnosis of greatest value to the patient must be made before the development of the so called cardinal symptoms, as the successful treatment of gall bladder infections depends largely on *early* diagnosis and early surgical intervention. Here we have a history of dyspepsia, apparently yielding to treatment but always recurring and becoming more and more aggravated. The trouble is almost invariably referred to the stomach, and the patient will complain of nausea, flatulence and soreness with occasional attacks of colicky pains always in the pit of the stomach. These attacks of colicky pain usually occur about four hours after eating and seem to bear no relation to the kind or quantity of food taken. Physical examination will show the upper half of the right rectus slightly rigid and the gall bladder region tender when properly palpated (by hooking the fingers under the ribs and asking the patient to take a full breath).

A moment's consideration of the anatomy and physiology of these organs will, I think, clear this rather contradictory group of symptoms.

The sympathetic nervous system is unsegmented, any nerve irritation affecting one organ will be referred to its ganglion and transmitted to all the organs receiving innervation from this ganglion. The liver, stomach and intestines all receive their sympathetic nerve supply from the solar plexus, therefore any spasmodic contraction of a hollow viscus within the area innervated by the solar plexus will be referred to the plexus and thence to its fellow organs. The gall bladder and stomach each receive a few fibres from the pneumogastric nerve. Until recently it has been believed that this double nerve supply has accounted for the close connection between the gall bladder and the stomach. From the

experiments of Frese of Johns Hopkins, working on biliary pressure, we learn that it is possible to cut the fibres of the vagus supplying both gall bladder and stomach without disturbing the relationship between the passing of food from the stomach to the duodenum and the emptying of the gall bladder.

The pylorus is opened and closed by two distinct means, nerve irritation through the splanchnics and chemical irritation.

The pyloric relaxation at regular intervals after eating to allow food to pass on into the intestine is of chemical origin, as demonstrated in May, 1908, by Cannon of Harvard, who proved by experiment on live animals that the presence of hydrochloric acid in the antrum of the stomach would cause the pyloric muscle to relax and that the presence of hydrochloric acid in the duodenum would cause the pyloric muscle to contract. He was able, by dropping a small quantity of dilute hydrochloric acid directly upon the duodenal mucous membrane to throw the pylorus into a spasm, which continued until this acid was neutralized, whereupon the spasmodic contraction immediately subsided. The acid chyle should be neutralized in the duodenum by the succus entericus, pancreatic secretions, but chiefly by the bile. The presence of this acid in the duodenum calls forth a flow of these secretions by the formation of a ferment, secretion, which is picked up by the blood stream. If for any reason the gall bladder is unable to deliver bile in sufficient quantity, the duodenal content remains acid and the pylorus remains in spasm.

Given a gall bladder with its cystic duct partly occluded either by a stone or by inflammatory process, the muscular walls in attempting to overcome the obstruction contract, this contraction is referred through the splanchnics to the pylorus causing a similar contraction there, or pylorospasm made evident by a sharp colicky pain in the

pit of the stomach. This pain is not, however, to be confounded with biliary colic. Contraction of the gall bladder is stimulated by the passing of chyle into the duodenum as mentioned above. With a blocked cystic duct the gall bladder upon receiving this impulse is unable to deliver bile in sufficient quantity to perform its natural neutralizing function and the duodenum remaining acid we have the second cause of pylorospasm. This mechanism explains the occurrence of the pyloric spasm at a definite interval after eating, with its cause wholly outside the stomach.

The *dull* pain, nausea and general distress in the stomach are caused by nerve irritation referred through the sympathetic route to the solar plexus and therefore felt in the stomach and due to the inflammatory changes in the walls of the gall bladder themselves, stones if present only serving to keep up the inflammation, but not being accountable in any way for these symptoms. The pain referred to the back is present only when the peritoneum is involved.

The muscular walls of the gall bladder contracting against a *partial* obstruction become hypertrophied like the walls of an intestine or appendix, with partial obstruction, and the symptoms due to this contraction increase in severity with the increase of the strength of the muscle.

Complete obstruction of the cystic duct is followed by an over-distension and thinning of the gall bladder walls like the walls of an intestine in *complete* obstruction with over-distension, and the symptoms due to the contraction decrease with the *weakening* muscle. Later the muscle is supplanted by fibrous tissue in the gall bladder walls, which then shrink and thicken. Therefore with *partial* cystic duct obstruction we have pylorospasm giving midline epigastric pain, with a double causation, the contraction referred through the splanchnics which may occur at any

time, and the chemical contraction which occurs at a definite time after eating.

With *complete* obstruction we have no contractions of the gall bladder and therefore the pain *only* from the spasm of *chemical* origin. The passing of a stone into the ducts gives rise to true gallstone colic. The onset is usually sudden, a sharp colicky pain in the pit of the stomach, later localizing in the right hypochondrium and referred through to the back, and tenderness in the whole upper abdomen, but more particularly over the gall bladder. Accompanying this we have jaundice, clay colored stools, and dark urine. The attack may end as suddenly as it commenced, leaving only a slight soreness in place of the agonizing pain which had so recently been present. Frequently this occurs in an attack of vomiting when the relaxation either allows the stone to pass on into the intestine or drop back into the gall bladder.

If the stone becomes impacted in the *common duct* the jaundice gradually deepens, the pain remains but in a milder degree. This condition is accompanied by a low-grade temperature, followed in turn by a high temperature, chills and sweats, due to cholangitis which is developed by interference with free drainage of an infected area.

A stone may be lodged in the *common duct*, causing either constant incomplete obstruction or spasmodic obstruction acting as a ball valve at the ampulla, in which case we have recurring attacks of pain, jaundice, and even cholangitis, with periods of remission until finally the infective agent becomes master of the situation and death ensues.

Obstruction due to inflammatory changes in the wall of the ducts themselves or to pressure from without will show no remission and will reach a much earlier fatal termination.

Bradbury Building.

PLAGUE IN SEATTLE.*

BY WALTER WYMAN, A.M., M.D., LL.D., WASHINGTON, D. C.,
SURGEON-GENERAL, U. S. P. H. AND M. H. S.

On account of the occurrence of three cases of plague in Seattle during the month of October, 1907, the service was requested by the governor of the State of Washington and by the mayor of the city of Seattle to assume the direction of measures for the eradication of the infection.

On October 22, 1907, the following telegram was received from the governor of the State of Washington:

"SEATTLE, WASH., October 22, 1907.
"Surgeon-General, Public Health and Marine Hospital Service, Washington, D. C.:

"Mayor of Seattle advises me that one death from bubonic plague has taken place there, and forwards request of city board of health that I ask your

service to take charge of the prophylactic measures that may be necessary to stamp out the disease at its inception, which request I respectfully and earnestly make.

"ALBERT E. MEADE,
"Governor of Washington."

October 24 the following telegram was sent to Governor Meade:

"After consultation with Assistant Secretary Treasury, in response to your telegram 22d, received this morning, Passed Assistant Surgeon Cofer will be ordered to Seattle as representative of service in Seattle and Puget Sound territory. Doctor Cofer has had large experience with plague at Honolulu. Passed Assistant Surgeon White, already in Seattle, has also had large

*From Annual Report United States Public Health and Marine Hospital Service, 1908.

experience with plague. Pending Cofer's arrival, Doctor White has been directed to confer with mayor in advisory capacity and to make known to bureau necessities of situation. Additional officers will be sent if needed. Same arrangements will be necessary with regard to expense as have been made in San Francisco and Oakland, and in New Orleans during yellow fever epidemic. That is, labor and material required will be furnished by state or local authorities, the department furnishing necessary professional force, including laboratory if required."

To the above telegram the following reply was received:

"SEATTLE, WASH., October 24, 1907.
"Surgeon-General, United States Public Health and Marine Hospital Service, Washington, D. C.:

The State of Washington and the city of Seattle will supply to the United States Public Health and Marine Hospital Service all the men, money and material necessary for the immediate suppression and eradication of the bubonic plague within their boundaries.

"ALBERT E. MEADE, Governor.

"WM. HICKMAN MOORE, Mayor."

An experienced commissioned medical officer was immediately ordered to Seattle with instructions to inaugurate a campaign against the plague infection existing in the city of Seattle proper, and to extend the work if necessary to other cities in the State of Washington should the infection spread thereto.

The following is taken from the report of Passed Asst. Surg. L. E. Cofer, who was detailed to represent the service at Seattle:

THE EXTENT OF THE INFECTION.

Bubonic plague was discovered in Seattle during the month of October, 1907.

Three human cases, one of the bubonic type and two pneumonic, occurred between October 16 and 25. Since October 25 there have been no further

human cases. At the time of the appearance of the disease, one rat infected with plague was found. Eleven other infected rats have been found since that date. The source of infection was probably San Francisco, although this can not be proven. The three human cases apparently originated from two separate foci and between these no connection was ever demonstrated.

The service work in Seattle, directed especially to the suppression of plague, was inaugurated on November 9, although much valuable sanitary work had already been accomplished by the emergency corps authorized by the city council.

This work was immediately merged into the service work, so that the whole system of sanitary policing and rat extermination was conducted by the service representative, with the assistance of a special health officer appointed by the mayor of Seattle.

Our present knowledge of plague naturally suggested a certain permanency to the work in hand, and on these lines the equipment was provided.

Having decided upon an organization which should be directed from a central office through district departments, a building was hurriedly constructed for the purpose. This building contained rooms for executive and clerical work, quarters for the service bacteriological laboratory, morgue and necropsy room, animal barn, and poison manufacturing and distributing depot.

The operating divisions comprised one for the disinfection of vessels, one for bacteriology, one for medical inspection and reports, and one for special municipal policing.

The expense of the campaign was apportioned as follows: The Public Health and Marine Hospital Service furnished the funds for medical supervision, bacteriological service, and men and material for the disinfection of ships. The city of Seattle supplied the

necessary men and material for the municipal sanitary work.

GENERAL PLAN OF CAMPAIGN.

It was found after a general inspection of the city of Seattle that the bulk of policing and general sanitary work would be confined to about 218 city blocks. The work was carried on, however, in a minor degree over the entire city.

In the work of rat extermination it was decided to include the whole city.

The disinfection of vessels was limited to vessels leaving Seattle for Puget Sound and Alaskan ports.

Vessels plying between Seattle and San Francisco are regularly disinfected at the latter place.

THE WORK OF THE OPERATING DIVISIONS.

The division for the disinfection of vessels is under the charge of a medical officer of the service.

The bacteriological division is likewise under the charge of a medical officer of the service. At the laboratory rats both dead or alive are received daily and examined bacteriologically. Each rat or collection of rats, as the case may be, bears a card stating as accurately as possible the locality where found.

All bodies of persons dying under suspicion of plague are brought to the morgue, where necropsy is performed. The division of medical inspection and reports was subdivided into six sections, each under an acting assistant surgeon. These medical officers were in immediate charge of the policing, rat-catching, and poisoning squads. A systematic policing of premises was carried on under the immediate supervision of the medical officers, together with a house-to-house inspection of the occupants of houses.

Detailed maps of every city block of importance from a sanitary standpoint were drawn and filed in book form where they were easily accessible for reference. The districts were repeatedly

inspected in order to insure constant compliance with the sanitary rules.

The inspections were covered by typewritten classified reports on the rubbish and garbage disposition, on plumbing irregularities, and on general nuisances. Every landlord was given a written order to comply with the ordinances in detail, and the failure to comply with said order was made the subject of a special report which was forwarded to the chief of police for action.

An attorney at law was employed for the purpose of enforcing the following ordinances, which were passed by the city council of Seattle shortly after the outbreak of plague.

ORDINANCE NO. 15957, OF SEATTLE.

"SEC. 13. It shall be unlawful for any persons to have or permit upon any premises owned, occupied or controlled by them any nuisance detrimental to health, or any accumulation of filth, garbage, decaying animal or vegetable matter, or any animal or human excrement, and it shall be the duty of the health officer of the city of Seattle to cause any such person to be notified to abolish, abate and remove such nuisance, and in case such person shall fail, neglect, or refuse to remove the same within three (3) days after receiving such notice, such nuisance may be removed and abated under and by order of the health officer, and the person whose duty it was to abate or remove such nuisance, in addition to incurring penalties in this ordinance provided, shall become indebted to the city of Seattle for the damages, costs and charges incurred by the city by reason of the existence and removal of such nuisance.

"SEC. 17. It shall be unlawful for any person to dump or place upon any land, or in any water or waterway, within the city of Seattle, any dead animals, butchers' offal, fish or part of fish, or any waste vegetable or animal matter whatever and the board of public works is hereby authorized to offer a

reward of fifty (\$50) dollars to any person furnishing evidence that will lead to the arrest and conviction of any person depositing the body of any dead animal in any water or waterway within the city of Seattle.

"SEC. 21. It shall be unlawful for any person, whether the owner, lessee, occupant, or agent of any premises, to keep or permit to be kept in any building, area way, or upon any premises, or in any alley, street, or public place adjacent to any premises, any waste animal or vegetable matter, dead animals, butchers' offal, fish or part of fish, ashes, swill or refuse matter from any restaurant, eating place, residence, place of business, or other building, unless the same be collected and kept in a tightly covered or closed metal can or vessel, which can or vessel shall have firmly attached to the body thereof a metallic tag or label bearing the name or names of the owner or owners thereof, and the number of the premises in connection with which such can or vessel is being or is intended to be used.

"SEC. 53. Any person violating or failing to comply with any of the provisions of this ordinance shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine in any sum not exceeding one hundred (\$100) dollars, or by imprisonment in the city jail not exceeding thirty (30) days, or by both such fine and imprisonment."

THE WORK OF RAT CATCHING IN SEATTLE.

This work was attended in Seattle with many serious difficulties, not only because of the bad sanitary condition of the city, but owing to the topography of the latter. The lower or business portion of Seattle is built for the most part upon piles, and the resulting area of dark space below the houses furnishes an unlimited harbor for rats.

The city of Seattle is practically being regraded. Hills are being cut down and the material deposited upon the lower levels, raising these from 20 to 50 feet.

The houses are being elevated on piles to a similar height in the lower portion of the city, which together with the work of cleaning up refuse, destroying old buildings, and poisoning and trapping rats, served to scatter the rats over the city. Householders in sections hitherto comparatively free from rodents reported the presence of large numbers of rats in their neighborhoods.

Fortunately the infection in rats was not general. The crusade against the rodents was nevertheless extended so as to include the whole city. A bounty of 10 cents was paid for each rat delivered at the laboratory. In addition to this regular rat catchers were employed. Each rat on being received was tagged as to the locality where caught, submerged in kerosene oil whether alive or not; then fastened to a shingle and dissected. If appearances were suggestive of bubonic plague, a smear of the spleen, liver and lymph nodes was made and examined, and cultures made and animals inoculated.

The laboratory equipment was provided by the service, having been sent from the Jamestown Exposition for the purpose.

Especial attention was given to the flea count on rats. Flea counts in the laboratory showed that the number of fleas per rat dropped from 15 to 20 per rat in November to 6 fleas in 14 rats in February.

On the whole the flea count was reported as having varied very much. Some lots of rats averaged less than 1 flea to a rat, while the highest count was 68 fleas to one lot of 8 rats. The greatest majority of rats found in Seattle belonged to the species *Mus decumanus*, although a few of the species *Mus rattus* were received.

THE SANITARY POLICING OF SEATTLE.

An inspection of the city of Seattle demonstrated the fact that before an effective campaign against rats could be inaugurated a general cleaning up of the city was absolutely necessary: this

to reduce to a minimum all possible food supply for the rats.

The most serious difficulty encountered was the disposal of garbage. The method of disposal in vogue was the collecting of garbage and waste by a draying and trucking corporation at a monthly rate for each householder. Failure to pay this tax simply resulted in the garbage being left upon the premises, a penalty which operated against an easy solution of this important problem.

Some parts of the city were completely neglected, and the depositing of garbage and waste on open lots and even in public streets was not unusual.

The correction of these conditions required an energetic campaign.

An acting assistant surgeon was placed in charge of a definite district and given the requisite men and teams for removing all garbage and rubbish, and men for the wholesale poisoning of rats.

Every householder was required to provide himself, if this had not already been done, with a galvanized-iron garbage can with a proper lid. The result of these measures may be demonstrated by the following table, showing the increase in the garbage disposal during the months indicated. These figures are taken from the report of Assistant City Engineer C. T. Moore, of Seattle:

	Ton per month.	Loads per day.	Per cent of increase over September.
1907.			
September	4,019	92	..
October	4,553	94	11
November	6,056	116	50
December	5,646	112	40

There was on the city dump, December 31, 5,200 tons of rubbish over the normal, which demonstrated the stimulus which the emergency organization

gave to the regular municipal garbage service.

Early in December a special inspector was detailed to visit all meat markets and delicatessen stores with reference to enforcing the municipal ordinance requiring such establishments to be made rat proof. All markets were required to have metal-lined boxes with covers as scrap boxes. They were also required to have all windows and doors protected with $\frac{1}{2}$ -inch wire mesh. The results attained by rat proofing in this manner were highly satisfactory.

FUMIGATION OF SHIPS.

In addition to the measures above described to eradicate plague from Seattle, it was necessary to take precautions against the spread of infection to other places. Seattle has an extensive trade with Alaska, British Columbia, and other parts of the State of Washington. This is carried on for the most part by the shipping, therefore it was necessary to fumigate the vessels engaged in this trade in order to destroy rats. A medical officer of the service was placed in charge of this work. Sulphur burned in iron pots was the method used.

From November 7, 1907, to July 1, 1908, 145 vessels were fumigated. This work is still being carried on by the service.

The board of health of the State of Washington, through the secretary, Dr. Elmer E. Heg, rendered invaluable service by means of a circular letter sent to all health officers, both city and county, to county commissioners, and mayors of all cities of the counties bordering on Puget Sound. This circular letter contained many valuable suggestions.

On January 22, 1908, it was decided that conditions in Seattle had improved to a point where an emergency no longer existed. Accordingly the work

as a whole was reorganized on a permanent basis. The municipal inspection and policing was turned over to the special sanitation department of Seattle, the United States Public Health and Marine Hospital service retaining the pathological and bacteriological work, which included the examination of all rats sent to the laboratory.

The work is being conducted at this writing on lines similar to those described above.

Statistics covering the work performed are divided into two sets, one set covering the period from November 6, 1907, to January 22, 1908, the date on which, as stated above, the work was subdivided, and the others covering the period from January 22, 1908, to July 1, 1908.

PLAGUE-PREVENTION WORK FROM NOVEMBER 6, 1907, TO JANUARY 22, 1908.

City blocks inspected and reported	3,840
Nuisances abated	2,017
Cubic yards of rubbish burned..	1,949
Cubic yards of rubbish removed	2,510
Rats delivered and cremated....	15,475
Rats killed, approximately.....	25,000
Rats found infected with plague	2
Pieces of rat poison placed.....	128,800
Garbage cans installed.....	2,301
Pounds of poisoned wheat placed	150

TRANSACTIONS OF THE DIVISION OF SPECIAL MUNICIPAL POLICING.

Blocks inspected	484
Garbage cans installed	7,500
Cubic yards of rubbish removed	13,700
Old buildings destroyed.....	26

From January 22, 1908, to the end of the fiscal year, June 30, 1908, the work of Seattle, as a whole, has been carried on under principles suggested by the United States Public Health and Marine Hospital Service. The commissioner of health in Seattle, the special health officer, and the secretary of the Washington state board of

health are now rendering to the medical officers of the service at Seattle constant assistance.

Approximately 25,000 rats have been subjected to necropsy and, when necessary, to bacteriological examination at the service laboratory between January 22, 1908, and the end of the fiscal year. This number, added to the 15,475 examined prior to that time, makes an approximate total of 41,000 rats examined, out of which number to date 11 have been found infected with plague.

STATEMENT OF PLAGUE AT SEATTLE FROM DATE OF FIRST APPEARANCE, OCTOBER, 1907, TO NOVEMBER 30, 1908.

	Plague rats.	Human Plague.	
		Cases.	Deaths.
1907.			
October	1	3	3
November	0	0	0
December	3	0	0
1908.			
January	1	0	0
February	0	0	0
March	3	0	0
April	1	0	0
May	2	0	0
June	0	0	0
July	0	0	0
August	0	0	0
September	1	0	0
October	0	0	0
November	0	0	0
Total (1907-8)	21	3	3

NOTE.—Plague Among Ground Squirrels in California.—Laboratory experiments have demonstrated that ground squirrels can be infected with plague, and a few cases of such infection have been reported. In August and September, 1908, three squirrels found dead and one squirrel shot in Contra Costa County, Cal., were the subject of laboratory investigation in the service laboratories at San Francisco and Oakland, Cal. These squirrels all gave positive evidence of plague infection, and from cultures

made from them the disease was communicated to other laboratory animals. At Los Angeles, Cal., on August 5 or 6, a boy was bitten upon the finger by a sick squirrel and was taken sick on the 11th, and his case subsequently pronounced to be plague. Though the squirrel infecting the boy was subsequently destroyed by a dog and a cat, a search of the premises resulted in the finding of a dead squirrel on August 21, which squirrel, on examination, presented evidences of plague infection, subsequently confirmed by experiments on laboratory animals. Though an extensive search and numerous examinations have been made in the vicinity of Los Angeles, no more infected animals have been discovered, but on account of the wide distribution of these rodents throughout California, the matter is one that must be considered with grave concern. During the period between August 5 and October 10, in addition to other animals, 423 ground squirrels from Contra Costa County have been the subject of examination.

A MALARIA THEORY OF HISTORY.

A new theory as to the cause of the decay of ancient Rome and Greece was recently advanced by W. H. S. Jones, of Cambridge. Practically the first occurrence of the Greek word for malaria is in "The Wasps" of Aristophanes, in 422 B.C. Three years before that date the Athenians had been engaged in military operations on the island of Sphacteria, now one of the most malarial spots in the Mediterranean. The Peloponnesian war soon afterward led to great tracts of lands going out of cultivation, which would give the malaria bearing mosquito ample breeding grounds. When the word for malaria became common the word for melancholia (black bile) began to appear. The melancholia of the ancient Greek writers resembles the mental effects of malarial fever; Hippocrates found it to occur especially in autumn (the malarial season), and Galen considered that it caused enlarged spleens (a feature of malaria). Malaria seems thus to have become prevalent in Greece in the fourth century B.C.; and the change which gradually came over the Greek character from 400 B.C. on-

ward was one which would certainly have been aided, and was in all probability at least partially caused by the same disease. The Greeks commenced then to lose much of their intellectual vigor and manly strength. Home life took precedence of city life. Patriotism decayed and lofty aspirations almost ceased to stir the hearts of men. Dissatisfaction and querulousness are marked characteristics of that age.

FOREIGN BODIES IN THE EAR.

The following method is very useful for extracting foreign bodies from the ear canal. On one occasion a white bean had been introduced into the canal of a child and the efforts for removal had pushed the bean against the drum transversely. It was swollen and the canal abraded and very sensitive. The child had to be chloroformed, and with a good lamp and a head mirror (the operation was done at night) the bean was extracted in a few seconds. I have recently extracted an ordinary cowpea from the canal of a boy by the same method.

The instrument for extraction is made by heating the point of a fine sewing needle and bending it at right angle or a little more, so as to make a short hook. The large end of the needle is then inserted into a handle—an ordinary match will do. The little hook is passed flatwise into any space between the foreign body and the canal, then turned against the foreign body, which can be drawn out without danger of injury to the delicate structures. It is necessary that the needle have a fine point, and that the hook be short. This instrument is specially useful in the case of beans, peas, grains of corn, etc., which are the bodies most usually introduced into the ear, and when swollen and soft the hook takes hold more easily.—B. A. COLOMB, M.D., *Union, La.*

SOUTHERN CALIFORNIA PRACTITIONER

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EDITORIAL

JOHN BURNS, ENGINEER, PUBLICIST.

Asquith, Lowther, Lloyd George, of the present English Cabinet, are all great men but John Burns, for over twenty years a member of parliament is the cabinet minister in whom the members of the medical profession are most interested.

On June 2, Mr. Burns opened in the East End of London a series of consumption exhibitions, modeled after those with which we are familiar in this country, organized by the National Association for the Prevention of Consumption, which are being held throughout the country for the purpose of educating the nation as to the steps that should be taken to combat the disease. Mr. Burns, who seemed to have the chief details regarding tuberculosis at his fingers' ends, made a

telling speech in which he pointed out that during the past forty years tuberculosis had decreased some 50 per cent. and that during the past five years the greatest progress of all had been made, by means of the education of the people. Some of the statistics given by the speaker to drive home his remarks to his audience were strikingly illustrative. Among them were the following: Every year the world loses five million people on account of tuberculosis. In London alone there is a yearly death rate of 9176, a number larger than the total of the officers and men who fell during the three and a quarter years of the South African War. Consumption preys especially on the lower classes. It is the daughter of ignorance, the offspring of drink, and the product of carelessness. The text of Mr. Burns' speech was that

education as to the means of fighting tuberculosis was particularly needed among the poor, and the statement in reference to consumption applies to every civilized country of the world. Mr. Burns said that there were a number of common-sense, homely things which might be done. In the workingman's home his stove register was nearly always shut; it ought to be open to take the air from the floor. In too many houses the windows were never opened. Then there was the enormous danger of the baby's comforter and soother. It was necessary, also, to get rid of the damp and dirty basements which had made so many consumptive servants, and to abolish the one-room tenement.

*The Local Government Board of London, of which Mr. Burns is the head, has recently authorized nine researches out of the annual Parliamentary grant. Five are continuations of investigations into protracted and recurrent infection in typhoid; the same in diphtheria; into flies as carriers of infection; into sewage bacteria and defensive mechanism of the body against infections; milk pollution and Gaertner's bacilli in prepared foods. The other four are (a) changes undergone by milk on infection by bacteria and relation of pancreas to epidemic diarrhea (Drs. Sholberg and Wallis); (b) records of lying-in hospitals as to nutrition of mother and other factors influencing vitality of infants in the first fourteen days (Dr. Darwell Smith); (c) mixed infections in phthisis (Dr.

Inman); (d) importance of certain types of cells in defense against the tubercle bacillus and effect of tuberculin on their activities (Dr. J. Miller).

The editor of *THE SOUTHERN CALIFORNIA PRACTITIONER* a few weeks ago had the pleasure of taking tea with Mr. Burns on the embankment between the Parliament Building and the river Thames. As we sat there this member of the English Cabinet pointed across the river to where the smoke was coming out of a high chimney, and said, "Not very many years ago I was running that engine."

He has been a great factor in preparing the "Poor Man's Budget" which Lloyd George presented and which will do much towards putting the taxation of England on a fair basis.

He is a well balanced, aggressive promoter of everything that can be done for the improvement of the condition of England's poor. He does not prevent the possible by advocating the impossible.

THE NURSE AND THE FLY.

We have received from Dr. Albert Van der Veer of Albany, New York, two booklets entitled respectively:

(1) *The House-Fly at the Bar.*

Indictment;

Guilty or Not Guilty?

(2) *Pollution of New York Harbor As a Menace to the Health by the Dissemination of Intestinal Diseases Through the Agency of the Common House Fly.*

These are issued by the Merchants' Association's Committee on Pollution of the Waters of New York of which

*Medical Record, June 26, 1909

Dr. Van der Veer and Pierpont Morgan are the active members.

These reports contain a convincing and authoritative arraignment of the House-Fly as the purveyor of intestinal diseases.

One article contained herein by Dr. Daniel B. Jackson is particularly comprehensive.

In a quiet way the trained nurse can do much toward eliminating the dangers from the fly. She should consider the fly her mortal enemy, and kill it wherever seen. She should never allow a single fly to remain in the sick room. Above all she should teach the members of every household that she may learn the great danger of allowing flies access to any food. Breeding places for flies should also be done away with in every home.

Dr. Van der Veer's committee has sent out broadcast, in New York, the following rules:

RULES FOR DEALING WITH THE FLY NUISANCE.

Keep the flies away from the sick, especially those ill with contagious diseases. Kill every fly that strays into the sick room. His body is covered with disease germs.

Do not allow decaying material of any sort to accumulate on or near your premises.

All refuse which tends in any way to fermentation, such as bedding straw, paper waste and vegetable matter, should be disposed of or covered with lime or kerosene oil.

Screen all food.

Keep all receptacles for garbage

carefully covered and the cans cleaned or sprinkled with oil or lime.

Keep all stable manure in vault or pit, screened or sprinkled with lime, oil or other cheap preparation.

See that your sewage system is in good order; that it does not leak, 's up to date and not exposed to flies.

Pour kerosene into the drains.

Cover food after a meal; burn or bury all table refuse.

Screen all food exposed for sale.

Screen all windows and doors, especially the kitchen and dining room.

Burn pyrethrum powder in the house to kill the flies.

Don't forget if you see flies, their breeding place is in nearby filth. It may be behind the door, under the table or in the cuspidor.

If there is no dirt and filth there will be no flies.

If there is a nuisance in the neighborhood write at once to the health department.

CALIFORNIA HOSPITAL NURSES.

The Eleventh Annual Commencement of the Training School for Nurses of the California Hospital took place in the auditorium of the Los Angeles Gamut Club Friday evening, June 25th. The hall was filled with friends. Rev. W. A. Knighten delivered the invocation and benediction. This was peculiarly fitting as his daughter was in the graduating class. The eloquent attorney, John G. Mott, Esq., delivered the address of the evening. He spoke of the great responsibility resting upon the nurse, of

the influence of the nurse in the performance of duty and the higher life which has been led by such women as Florence Nightingale. He expressed his belief that there are as many heroes as great today found in the ranks of the nurses at the bedsides of the sick as in the martyrs of the past ages.

Dr. John C. Ferbert, one of the directors of the California Hospital, delivered the address on behalf of the Faculty.

Dr. W. W. Hitchcock, the vice-president, then, with some appropriate remarks, delivered the diplomas. This was followed by the presentation of the class pins. At the close of the exercises there was music and dancing in the adjoining hall. The following graduated:

Miss Wyma Duncan, Portland, Or.
 Miss Jessie Viola Young, St. Louis, Mo.
 Miss Alice Dougherty, Philadelphia, Pa.
 Miss Alta Lazelere, Clinton, Mich.
 Miss Emily Janette Richards, Grass Valley, Cal.
 Miss Carrie Hunt, Rock Island, Ill.
 Miss Augusta Johnson, Los Angeles, Cal.
 Miss Nettie Marion Johnson, Minden, Neb.
 Mrs. Gertrude F. Russell, Washington, D. C.
 Miss Etta Melita Dawson, Covina, Cal.
 Miss Nellie V. Kelly, Council Bluffs, Iowa.
 Mrs. Maude Payton Bassac, Forbestown, Cal.
 Miss Gertrude Brinkerhoff, Los Angeles, Cal.
 Miss Anna Mortensen, Palms, Cal.
 Miss Elena Navarro, Ures Sonora, Mexico.

Mr. George Frederick Nurminger, Saginaw, Mich.

Miss Adelaide M. Knighten, Los Angeles, Cal.

Miss Myrtle Virginia Gay, San Francisco, Cal.

Miss Gertrude MacIntosh, Chicago, Ill.

Miss Winifred Louise Atherton, Los Angeles, Cal.

Miss Mildred Louise Nichols, Detroit, Mich.

Miss Maude May Eckleen, Pasadena, Cal.

Miss Ethel Ercilla Mitchell, Eureka, Cal.

VISITING NURSES UNDER THE LOS ANGELES COLLEGE SETTLEMENT.

We have received from Mrs. Maude Foster Weston, Superintendent of Instructive District Nursing, the report of the above work for the twelve months ending December 1st, 1908. The total number of patients visited, 2506; total number visits made, 13,063. The nurses also made 1974 friendly visits. These nurses attended 182 Maternity patients. The distribution of patients in wards was as follows:

DEC. 1, 1907, TO DEC. 1, 1908.		
Number of Ward		Number of Patients
1	.....	9
2	.....	742
3	.....	5
4	.....	2
5	.....	10
6	.....	145
7	.....	336
8	.....	892
9	.....	365
Total.....		2506

The freedom from demand for this class of work in the first, third, fourth

and fifth wards is surprising. That the physicians of Los Angeles may know how to call the attention of these nurses to worthy cases we give the names and addresses of the staff of nurses as follows:

Miss Emma Engle, Call Station, College Settlement. Telephones, Main 1057, Home A 3978.

Miss Isabel Pirie, Call Station, Recreation Center, St. John and Holy streets. Telephone, Home A 6696.

Miss Edith Boyington, Call Station, City Playground No. 1. Telephone, Home F 3085.

Miss N. K. Morrison, Call Station, Vignes St. Dispensary. Telephones, Main 5726, Home A 9031.

Miss Ethel Jardine, District Maternity Nurse, Call Station, College Settlement. Telephones, Main 1057. Home A 3978.

A very interesting article by Mrs. Weston on this important subject appears on page 214 of *THE SOUTHERN CALIFORNIA PRACTITIONER* for April, 1909. We, as physicians, appreciate the great blessing a skilled nurse is in a home stricken with disease and poverty.

It is also a profitable investment. Besides preserving the health of the immediate patients these nurses are teachers. Every household they enter is taught of the value of cleanliness, diet, fresh air and the danger of infection.

SNAKE POISON ANTIDOTE.

While in London Sir Patrick Manson, who is known and admired by many Los Angeles physicians, took us to the London School of Tropical

Medicine. The next morning a reporter came to us and asked for an interview in regard to what we saw there. We told him something of the work that was being done and incidentally mentioned that one room was devoted to snakes. The result was the following appeared the next day, Friday, May 21, 1909, in the *New York Herald*:

ANTIDOTE FOR SNAKE BITES.
One Is About To Be Announced by the
School of Tropical Medicine
in London.

(Special Dispatch to the Herald via Commercial Cable Company's System.)

HERALD BUREAU,
No. 130 FLEET STREET,
LONDON, Thursday.

The handful of scientists who have been working at the London School of Tropical Medicine on a cure for snake bites believe they are on the eve of a very important discovery. This information was given to the *Herald* correspondent by Dr. Walter Lindley, of Los Angeles, Cal., who was today taken over the school by Sir Patrick Manson, a distinguished parasitologist.

Sir Patrick Manson was the first to enunciate the hypothesis, since proved correct by Major Ross, that the mosquito was the host of the malarial parasite at one stage of its existence, and thus an active agent in diffusing the disease.

"The results of the work done at the London School of Tropical Medicine are of vital importance to the United States of America," said Dr. Lindley. "and if I were a Carnegie or

a Rockefeller I would richly endow an institution which is greatly handicapped for want of funds. Among the hundred-odd students from different parts of the world all are physicians of prominence and standing in their own country. Those working in the laboratory, that looked like a reptile house at the 'zoo,' excited my curiosity. Most of these men have been studying snake poisoning, and I gathered that before very long the discovery of an antidote would be announced.

"As many hundreds of people are fatally bitten by rattlesnakes every year in the United States you may be sure this was vastly interesting to me. Under the able guidance of Sir Patrick Manson this school is doing a great work, and Americans would be benefiting their own country by giving it some financial support, for since the United States took over Cuba and the Philippines she has had to take her share in the fight against tropical disease."

To make matters still worse, the following appeared as an editorial in the same paper:

A CURE FOR SNAKE BITES?

"News of vast interest to the medical world comes in a special cable dispatch to the *Herald* from London this morning. This is the statement by an American visitor, Dr. Walter Lindley, to the School of Tropical Medicine, that scientists studying there believe they will soon be able to announce an antidote for snake bites.

"Residents of the United States who are not too serious minded will see the

peculiar fitness of such a discovery at this time, when the spread of prohibition is banishing the time-honored 'cure' from such a large territory."

When we arrived home we found these two letters waiting for us:

HATTIESBURG, MISS., May 21, 1909.

Dr. Walter Lindley, Los Angeles, Cal.:

DEAR SIR:—I see from newspapers that you have recently visited a school in England in which they were trying to discover an antidote for snake poison and with some prospects of success. Why not we in this country (the U. S. A.) produce this antidote, as we have it here from nature's own hand in the shape of a weed which will kill the effects of poison from any variety of snake known in this country—rattlesnake, moccasin, adder, or any other known in this country. I know of a weed that if used in proper time—or before the patient dies—will give almost instantaneous relief and never fail if properly administered. Now, I know this weed will kill any snake poison, as we take the weed from the ground and in its green state, and it will be for you or some chemist to extract and preserve the qualities from this weed to make it available for the world. If you wish to make an investigation of this weed, I will send you a sufficient quantity by express to make any experiment necessary to convince you of my claim that it will counteract the poison of any snake in this country, and if you are satisfied with the experiment and can extract from the weed those curative qualities and make it marketable, then we may go in together and make a fortune out of it. If you

feel interested, let me hear from you, and oblige, yours very truly,

(Signed)

S. C. POWE.

Dr. Walter Lindley, Los Angeles, Cal.:

DEAR SIR:—I have seen in the papers that you are interested with the London School of Tropical Medicine on a cure for snake bite, and as I have a remedy that I have proved repeatedly in the last forty years, several times for snake bite and often for the bite of spiders, I will send it to you that it may get before the world. It is simply to pile common cooking soda on the wound and drop vinegar on it until the pain ceases.

My husband was a stockman, and while riding across the prairie about

two miles from camp his horse was bitten on the leg by an immense diamond rattler. He put spurs to him and tried to reach camp before the poison could do its work, but before he got there his horse fell. His leg was as large as two legs. As soon as possible he began to apply the soda and vinegar. In about an hour the horse got up and commenced grazing. As soon as the swelling went out he was well.

I hope you will let this remedy be known and that it will prove all I claim for it. Respectfully,

(Signed)

MRS. J. C. PETTY.

Hempstead, Texas.

May 23, 1909.

EDITORIAL NOTES

Dr. F. H. Mead has been reappointed Health Officer of San Diego.

Dr. Randolph W. Hill of Los Angeles is away on a European trip.

Dr. Ida B. Parker of Orange has returned from a trip to Puget Sound.

Drs. Fred and Charlotte Baker of San Diego took a leisurely trip to Alaska.

Dr. James A. Jackson of San Diego is taking a post-graduate course in New York City.

Dr. Adolf Kreamer of San Diego has been spending a few weeks in camp on Paloma Mountain.

Dr. P. J. Parker of San Diego has been looking after his extensive mining interests in Mexico.

Dr. Carl Parker, Rush Medical College, class 1909, is located temporarily at 476 South Los Robles avenue, Pasadena.

Dr. G. A. Broughton has offices in the Wright & Callender Building, corner of Fourth and Hill streets, Los Angeles.

Dr. Henry J. Kreutzmann of San Francisco has removed his offices to 1054 Sutter street.

Dr. D. C. Strong has been reappointed Superintendent of the San Bernardino County Hospital.

Dr. Benjamin Thomas of Palo Alto and Miss Mabel S. Scofield of Pasadena were married June 19.

The Pomona Valley Medical Society at a recent meeting approved the plans for a new hospital of fifty rooms.

Dr. A. C. Schnabel was recently appointed City Bacteriologist of Tucson, Arizona, at a salary of \$50 per month.

Dr. I. B. Hamilton, the well-known mining expert, is spending the summer at Lake Tahoe. He resides in Tucson, Arizona.

Dr. C. W. Pierce of Los Angeles, Medical Director of the Fraternal Brotherhood, will speak at Seattle, at the Alaska-Yukon Exposition on July 24. From Seattle Dr. Pierce will go to Boston to attend the National Fraternal Congress.

The Colfax County, New Mexico, Medical Society, at a recent meeting in Raton, listened to a paper on "Pneumonia" by Dr. Guyer.

Dr. J. J. O'Brien, who has been connected with the California Hospital for the last five years, has opened offices at 1300 South Grand avenue.

Dr. C. E. Arnold of Los Angeles, who graduated from Cooper Medical College, class of 1901, has located in San Jacinto, Riverside County.

Dr. Philip Schuyler Van Patten of Nordhoff, Ventura County, has been spending his vacation in Los Angeles, principally in hospitals and laboratories.

Dr. E. R. Smith of Los Angeles has returned from an Eastern trip that included New York City, his boyhood home in Vermont, and a visit to Montreal.

Dr. Ernest B. Hoag of Pasadena has been elected Director of Physical Instruction and Hygiene in the public schools of Berkeley, and will move to that city.

Dr. J. A. Champion of Colton proposes to close his private hospital and join with the San Bernardino physicians in building a first-class one in that city.

Dr. Adelbert Fenyes of Pasadena has returned home from the northern part of California. The doctor devoted himself especially to making entomological collections.

The State of Washington now has in action a law that applicants for marriage license must undergo medical examination, except where the woman is over 45 years old.

Dr. J. H. Wroth, of Albuquerque, who has been Secretary and Treasurer of the Board of Regents of the New Mexico University for the last twelve years, has resigned.

A Little Abdominal Surgery by the Family Physician, with Report of My First Fifty Cases and End Results. By W. H. Dukeman, M.D., of Los Angeles, is an interesting reprint.

Dr. Walter P. Keene, for three years assistant surgeon in United States army, for two years in the Georgetown University Hospital, Washington, D. C., is building a new sanatorium in Santa Monica.

The Editor of the SOUTHERN CALIFORNIA PRACTITIONER is glad to again be seated at the editorial desk. During our three months' absence Dr. George H. Kress did the editorial work most admirably.

Dr. Virgil McCombs of El Centro, Imperial County, California, is taking post-graduate work in Chicago. The doctor graduated from the College of Medicine, University of Southern California, class of 1900.

Dr. William Freeman Snow of Stanford University has been appointed member of the State Board of Health and elected State Health Officer and Secretary of the Board, succeeding Dr. N. K. Foster, resigned.

Dr. Odasco Carlos Welbourn of Los Angeles and Miss Annie Lloyd were married June 23 at the residence of the bride's parents, Clifton (Cincinnati) Ohio. Mrs. Welbourn is the daughter of Rev. John Uri Lloyd.

Dr. Granville MacGowan of Los Angeles will read a paper on "Malignant Diseases of the Bladder" on July 23 before the Urological Section of the Medical Associations of the Pacific Northwest at their meeting in Seattle.

The Journal of A. M. A. for June 26, contains the Index of Current Medical Literature for the six months ending June 30, as well as its own general index. This semi-annual index will be of great use for centuries yet to come.

The late Dr. W. B. Wall, a pioneer resident of Tustin, Orange County, left an estate valued at \$100,000. The doctor graduated from Jefferson Medical College, class of 1853. He was an excellent physician and a worthy citizen.

Dr. R. A. Cushman, formerly of Santa Ana, but more recently First Assistant Physician at the Mendocino State Hospital, has resigned his position, and bought a ranch in Mendocino County. He says, "that he purposes to lead the simple life."

The American Academy of Medicine will hold its 1910 meeting in Los Angeles. Dr. J. H. McBride, a Los Angeles County physician, is the president of this distinguished body. Come on, dear friends, you will find Los Angeles "so different."

The *San Fernando* (California) *Press* of June 25 says: "Dr. A. M. Duncan of Los Angeles, who is attending to Dr. Mackay's practice, reports several patients have consulted him as the result of an item in *The Press* that he treats eyes and ears and fits glasses."

The Ventura County Medical Association held their June meeting at the residence of Dr. T. E. Cunnane. Dr. Avery of Oxnard read a paper on "Typhoid Fever." The meeting closed with a social hour, during which refreshments were served by Mrs. Cunnane.

Dr. Thomas J. Orbison of Pasadena was on a car recently when a lady handed the conductor five pennies for her fare. The doctor resented a sneer that was on the conductor's face, an altercation ensued, and the doctor was arrested and found guilty of battery. This is certainly discouraging to gallantry and altruism.

The Los Angeles College of Physicians and Surgeons held its commencement exercises in Cummock Hall June

24, and awarded diplomas to four graduates. They were: F. W. K. Kidder, L. D. Lindsey, Andreas Peterson and James P. Dye. The principal address of the evening was delivered by Judge Wilbur, and the diplomas were presented by Dr. C. W. Bryson, dean of the faculty.

Dr. John Rollin French and Miss Effie Allen Douglas, both of Los Angeles, were married Tuesday, June 15. Dr. French was formerly resident physician of the California Hospital, and Mrs. French was the Assistant Superintendent. Dr. French is now one of the busy physicians of Los Angeles, and, after August 1, the bride and groom will be at home to their friends at 1706 West Pico street.

The Acousticon is an electric appliance for direct hearing. It seems to be quite a success, as over two hundred and fifty are being used in Los Angeles by people who were previously practically deaf. It looks very much like the ear piece that is used in telephone offices. They cost from \$25 to \$100 each. Marshutz, 555 South Broadway, Los Angeles, will, on inquiry, give you names and addresses of people using the Acousticon.

The Pomona Valley Hospital Training School for Nurses had its fourth annual commencement on Thursday, June 17. The presentation of diplomas was by Dr. F. W. Thomas, President of the Board of Directors, and the presentation of nurses' pins by Dr. J. K. Swindt, Secretary of the Board of Directors. Miss Ella Cline, formerly night superintendent of the California Hospital, is superintendent of the Training School.

Drs. Stanley Granger and Thorpe, who took their Freshman and Sophomore years at the College of Medicine of the University of Southern California, and their Junior and Senior years

at Rush Medical College, have just taken the examinations for internships in the Cook County Hospital, Chicago. There were about 200 applicants. In the results Dr. Granger stood second and Dr. Thorpe ninth. In the language of Theodore the Great, that is bully.

State of New York, Education Department, Albany, June 30, 1909.—Director Walter Lindley, California Hospital Training School for Nurses, Los Angeles, Cal.—Dear Sir: I have pleasure in advising you that at the meeting of the Board of Regents June 17, the California Hospital Training School for Nurses was registered under section 452 of the Regents Revised Rules as an approved school of nurse training. Yours respectfully, Augustus S. Downing, First Assistant Commissioner of Education.

The Superior Court Judges of Los Angeles County have chosen the following physicians to act as insanity experts: Drs. Elliot Alden, Charles L. Allen, H. G. Brainerd, L. H. Case, J. K. Carson, R. E. Chase, G. L. Cole, Guy Cochrane, J. E. Cowles, E. J. Cook, T. J. Coffey, E. T. Dillon, J. M. Duns-moor, J. C. Ferbert, James T. Fisher, W. H. Fox, E. H. Garrett, W. W. Hitchcock, E. B. Hoag, M. L. Loomis, G. MacGowan, J. A. McGarry, E. N. Mathis, M. L. Moore, Ross Moore, E. M. Palette, L. A. Perce, Q. J. Rowley, C. L. Saxton, E. R. Smith, F. W. Steddom, C. J. Tracey, W. L. Wade, R. Wernigk, W. L. Wills and L. B. Wright.

The American Institute of Homeopathy at its recent session in Detroit decided to hold its 1910 meeting in Los Angeles. Dr. James W. Ward, the well-known surgeon, formerly president of the San Francisco Board of Health, was elected President. Among those in attendance from Los Angeles County were Dr. E. C. Buell, Dr. W. J.

Hawks, Dr. F. S. Barnard, Dr. H. M. Bishop, Dr. F. J. Newberry of Los Angeles, Dr. J. S. Hunt of Santa Monica and Dr. W. S. Nichols of Pasadena. It is expected that there will be 1000 in attendance at the Los Angeles meeting. We can say right here that a hearty welcome and a delightful time awaits these guests. The latch-string is out.

The June meeting of the Riverside County Medical Association was held at the Victoria Club. The wives of the board were special guests. The paper was on "Psychotherapy," by Dr. F. W. Thomas of Claremont. Frank A. Miller, President of the Chamber of Commerce, by invitation spoke on good roads. Following the programme the doctors and their wives engaged in bowling and a social time. Those present were Dr. and Mrs. H. A. Atwood, Dr. and Mrs. Thomas R. Griffith, Miss Peterson of Chicago, Dr. and Mrs. A. W. Walker, Dr. and Mrs. C. S. Dickson, Dr. and Mrs. G. E. Tucker, Dr. and Mrs. J. G. Baird, Dr. and Mrs. C. W. Girdlestone, Dr. and Mrs. W. B. Payton, Dr. and Mrs. W. W. Roblee, Dr. and Mrs. Karl Sleeper, Dr. H. R. Martin, Dr. C. Van Zwahlenburg Dr. and Mrs. Outwater, Mrs. A. S. Parker, Miss Wintemuthe, Dr. Thomas of Claremont, and Hon. F. A. Miller.

The San Diego County Branch of the California Association for the Study and Prevention of Tuberculosis announces the opening of its dispensary at 611 G street, where all medicines are to be dispensed at no other cost than their actual value, except in cases of extreme need. The dispensary is a regular doctor's shop with a medicine closet. Dr. E. Grove, Dr. J. A. Goff and Dr. J. A. Parks are the regular attendants of the dispensary. A telephone has been installed which is numbered Main 2090. Visitors and others

interested in the movement to prevent tuberculosis are asked to call at the office. The dispensary is in charge of Morris Goldtree, chairman; Dr. I. D. Webster, Dr. Francis Allen, Mrs. Sam Brust, Dr. S. Cummings, Dr. J. A. Parks, Dr. J. Perry Lewis, Dr. Charlotte Baker, Dr. T. L. Magee, Dr. T. S. Whitelock, Rev. J. T. French and Mrs. Archibald A. Hill and Miss C. L. Hewitt. The latter is a graduate nurse and is superintendent of the dispensary.

Office of the Board of Medical Examiners of the State of California. Telephone Douglas 2710. 929 Butler Building, Geary and Stockton streets, San Francisco. Charles L. Tisdale, M.D., Secretary, San Francisco, California. The following is the schedule of examinations adopted by the Board

of Medical Examiners of the State of California: Tuesday, August 3—Histology, Dr. J. Henry Barbat, Examiner, 9 to 12 a.m.; Physiology, Dr. W. W. Vanderburgh, Examiner, 1 to 3 p.m.; Hygiene, Dr. George F. Reinhard, Examiner, 3:30 to 5:30 p.m. Wednesday, August 4—Pathology, Dr. W. M. Mason, Examiner, 9 to 12 a.m.; Obstetrics, Dr. Fred R. Burnham, Examiner, 1 to 3 p.m.; General Diagnosis, Dr. William W. Roblee, Examiner, 3:30 to 5:30 p.m. Thursday, August 5—Anatomy, Dr. D. L. Tasker, Examiner, 9 to 12 a.m.; Bacteriology, Dr. Charles Clark, Examiner, 2 to 5 p.m. Friday, August 6—Chemistry, Dr. Walter Lindley, Examiner, 9 to 12 a.m.; Gynecology, Dr. W. H. Stiles, Examiner, 2 to 5 p.m. Charles L. Tisdale, M.D., Secretary.

MISCELLANEOUS

CORRESPONDENCE.

Office of the Board of Medical Examiners of the State of California. Charles L. Tisdale, M.D., Secretary, 929 Butler Building, Geary and Stockton Streets, San Francisco. Telephone Douglas 2710.

SAN FRANCISCO, CALIFORNIA.

DEAR DOCTOR:—The Medical Law and the Rules of this Board require of an applicant who desires to practice medicine or surgery to file a diploma issued to him by a legally chartered Medical College, the requirements of which were at the time of graduation in no particular less than those prescribed by the Association of American Medical Colleges of that year.

Applicants who desire to practice Osteopathy are required to file a diploma from a legally chartered College of Osteopathy, having a course of instruction of at least twenty months, re-

quiring actual attendance, and after 1908, of three years of nine months each, and including the studies examined upon under this act.

The applicant must produce to the Board such a diploma and an affidavit stating that he is the lawful possessor of said diploma; that he is the person therein named, and *that the diploma was procured in the regular course of instruction and examination, without fraud or misrepresentation of any kind.* Such affidavit may be taken before any person authorized to administer oaths (blanks to be furnished by the Secretary of the Board).

PRELIMINARY EDUCATION—Each application must be accompanied by a statement signed by the principal of the high school or college attended, showing the subjects studied and the time devoted to each subject (how many hours a week and for how many weeks).

The applicant must furnish satisfactory testimonials of good moral character.

Each applicant must furnish two autographed (unmounted, cabinet size) photographs taken within sixty days of the date of application.

In addition to the above, every applicant must be personally examined on the following subjects: Anatomy, Physiology, Bacteriology, Pathology, Chemistry and Toxicology, Hygiene, Obstetrics, Histology, Gynecology, General Diagnosis.

There will not be less than ten (10) questions on each subject.

The examination must be in whole or in part in writing, and in the English language. A general average of 75 per cent. and a minimum of 60 per cent. on each subject must be attained.

A credit of five points is allowed for each ten years of legal practice.

The fee is twenty-five dollars, and must accompany the application.

If an applicant fail in his first examination, he may be re-examined at any subsequent meeting, and shall be required to pay for each of said examinations the full fee.

No special permits are authorized by law.

No temporary licenses to practice are issued.

There is no reciprocity between California and other States. All applicants must take the examination.

The regular meetings of the Board are held on the first Tuesday of April, August and December of each year.

Examinations will be held on the first Tuesday of April and August in San Francisco, and on the first Tuesday of December in Los Angeles.

Applications must be filed with the Secretary not later than two weeks prior to the first Tuesday of April, August and December.

All communications should be addressed to the Secretary.

CHAS. L. TISDALE, M.D.,
Secretary.

DEPOPULATION IN FRANCE.

The word "depopulation" may be understood in an absolute or relative sense; but a nation which is decreasing even only by comparison with its more rapidly increasing neighbors will eventually decrease absolutely. This is the case in France. According to the official census report for 1907, the number of births was 773,969, while the number of deaths was 793,889, making an excess of 19,920 deaths over births. The birth rate has long been steadily declining. Since 1901 the number of births has been less each year than for the preceding year.

For 1902, the decrease was.....	11,896
For 1903, the decrease was.....	18,666
For 1904, the decrease was.....	8,483
For 1905, the decrease was.....	10,938
For 1906, the decrease was.....	444
For 1907, the decrease was.....	32,878

As the mortality has by no means been diminishing at the same rate, the arrival of a time when the birth rate should fall below the death rate was inevitable. The declining birth rate is, indeed, far from peculiar to France; it has been noted in almost all countries of Europe. Only a few weeks ago your Berlin correspondent gave some instructive figures in regard to Germany. The phenomenon is the result of general causes, among which the progressive development of manufacturing industries and of means of communication and the immigration of the rural population to the large cities are conspicuous. It must be admitted, however, that in France the evil is more serious than elsewhere. What are the causes? Some believe that the warfare on religious ideas in France is responsible. The Christian religion has always condemned severely the evil practices which destroy life at

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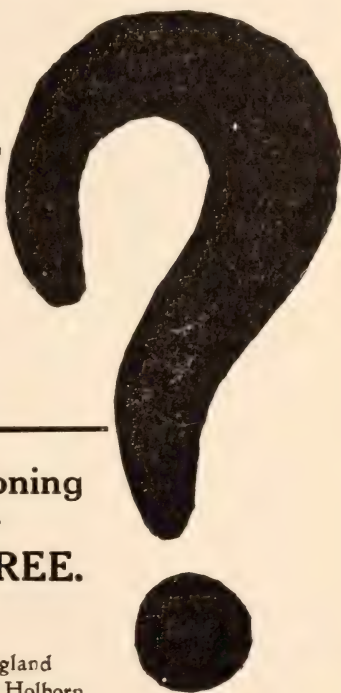
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its source, and that is why provinces like Brittany, where the religious sentiment has made the best stand, also have the highest birth rate.

Without denying the importance of this factor, however, it must be recognized that there are many other causes inherent in the mode of life and thinking peculiar to France or at least more accentuated in France than elsewhere. Individualism is the basis of the modern French mental makeup. De Foville says bitterly that ambition, vanity, the craving to show off, to enjoy and to possess, are the motives to which our countrymen are constantly yielding more and more. The thirst for prosperity increases with prosperity itself. Every one seeks to enrich himself at all hazards, and children, with all the expenses that they bring, are dreaded.

Then, too, many of the French are more ambitious for their descendants than for themselves, and, for the sake of the first-born, they are unwilling that he should have brothers or sisters. Moreover, at school and everywhere else, thrift and economy are inculcated. People are beginning to perceive now that this has been carried too far, for it is for the sake of thrift and economy that the French restrict the size of their families.

These causes have contributed to the success of an abominable propaganda organized under the deceptive name of “leagues of regeneration.” These leagues preach the right of abortion and teach young women that they may employ those vile means which, without requiring the privations entailed by the “moral restraint” of Malthus, promise

the same results. A news item of recent date indicates the extent of the evil. It states that there has just been arrested at Cambrai, in the north of France, an old man of 76, known as the "Friend of the People," who earned this title by producing several thousand abortions.

Legislative interference might remedy the condition to some extent, especially modifications of the tax laws. Families with several children are now grievously overtaxed, and unfortunately, the income tax bill now under debate makes no discrimination between the bachelor and the father of ten children.

INCREASE IN THE NUMBER OF MARRIAGES IN 1907.

Skeptics refuse to admit that legislation can furnish any remedy for depopulation, but the statistics in regard to marriages testify to the contrary. There were in 1907 more marriages than ever before, a total of 314,908 marriages—8221 more than the previous year. This abrupt and considerable increase is due solely to the law of June 21, 1907, simplifying appreciably the formalities of marriage, which are more complicated in France than in any other country. The fact that the increase dates from July, and has continued into 1908, proves that it is the result of the law.—*Journal A. M. A.*

CONSUMPTIVES MUST HAVE MONEY IN THE WEST.—EAST SHOULD NOT DUMP ITS HELPLESS SICK IN WESTERN COUNTRY, SAYS PHYSICIAN.—The tendency of Eastern physicians to shift both responsibility and incurable consumptives onto the West is well known here, but the injustice of such a course, both to the Western States and to the patients themselves was perhaps never brought out so strongly as by Dr. Walter Lindley of Los Angeles, who discussed the matter yesterday with a representative of the *News*. Dr. Lindley,

who is a director of the California Hospital, former president of the California State Medical Association and author of a work on the climate of California, is in Buffalo attending the National Conference of Charities and Correction.

"A thousand years ago the treatment of tuberculosis, abundance of milk, eggs and meat, together with fresh air and sunshine, was discovered, and nothing better than that has ever since been found by all the physicians of the world," said Dr. Lindley.

"The deserts and mountains of Arizona and Southern California give the maximum of sunshine and the purest air possible, but the cure of consumption does not depend on going to these sections. The results of outdoor treatment of consumption in New York and New England have been very encouraging. The results in Arizona, Southern California, New Mexico and Colorado for those who do not have money to provide the comforts of life and the best of food have been very discouraging. There is nothing more pitiful than the sight of a poor man or woman with tuberculosis getting off the train at some strange station in the Pacific Southwest. Every hotel, lodging house and hospital is closed against him or her. The people there are keenly alive to the dangers of infection, and no keeper of a restaurant will allow a consumptive to eat in the common dining room.

"The charitable institutions for the care of tuberculosis in California and Arizona will not admit any person who has not lived in the county or city in which the institution is located for at least one year. As it is, the county hospitals are overcrowded with the hopeless tuberculosis cases from the Eastern States. In these county hospitals practically all hope is banished.

"Aside from the hopelessness of it all, is the injustice of requiring the taxpayers of Arizona and Southern California to support the poor and sick of Eastern States and foreign countries. There are here and there sanitariums for tuberculosis where the very best of care is given and where the results and cures are surprisingly good. Within these the rates are from \$15 to \$50 a week, as the large quantity of eggs, meat, milk and cream required

makes the expense of maintaining these institutions very high.

"A tuberculosis patient with a large open window in the heart of New York City, who has kind care and an abundance of suitable food, has far better prospects of recovery than he would have if he were in Arizona or Southern California without the money to secure him the proper attention and nourishment.—*Buffalo (N. Y.) News*, June 13, 1909.

BOOK REVIEWS

THE YEAR BOOK OF THE UNITED STATES BREWERS' ASSOCIATION. A review of recent liquor legislation, with a digest of matters chiefly concerning the brewing industry. The United States Brewers' Association, Publishers, New York, 1909.

This volume contains valuable data for any person who is interested in the subject.

OPERATIONS OF THE UNITED STATES PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE for 1908. Being the annual report for the fiscal year 1908. Washington Government Printing Office, 1909.

This is useful reference book on State medicine.

TUBERCULOSIS. A Preventable and Curable Disease. Modern Methods for the Solution of the Tuberculosis Problem. By S. Adolphus Knopf, M.D., Professor of Phthisio-therapy at the New York Post-Graduate Medical School and Hospital; Associate Director of the Clinic for Pulmonary Diseases of the Health Department; Attending Physician to the Riverside Sanatorium for Consumptives of the City of New York, etc. With 115 illustrations. \$2 net; by mail \$2.20. Moffat Yard & Co., New York, 1909.

The publishers say: This book is written by one of the greatest authorities in the world, to show that consumption is now positively known to be curable, and to bring all people together into a world campaign for its subjugation.

A book for the patient and those living with him.

A book for the physician and sanitarian.

A book for the statesman and legislator.

A book for educators and teachers.

A book for rich and poor willing to help in the crusade against tuberculosis.

This attractive volume is full of information, reliable information, for the public, and there are very few physicians but could read it with profit. The detailed instructions with illustrations of how sanatorium treatment may be adapted to the home makes a very practical chapter. Here are plans for sleeping balconies, sleeping shacks, tents for outdoor living, window tents and the Klondike bed. Professor Knopf is an optimist. He inspires his readers with hope. Withal he gives substantial reasons for the faith that finds its abiding place within his soul.

In all cases of lumbago, especially of the chronic variety, examine the sacro-iliac joints for tenderness. Such cases may sometimes be almost instantaneously relieved by applying broad strips of plaster from beyond one superior iliac spine to the other, across the back. The straps must be applied tightly and with the feet closed together.

THERAPEUTICAL HINTS

A WORD FOR PASSIFLORA.

I have lost considerable time and caused many of my patients to suffer more and longer than they should have done by virtue of my ignorance of Daniel's Concentrated Tincture Passiflora Incarnata. In my practice I consider your Passiflora a good standby, casting abominable opiates entirely out of use. In looking back over my past and that of other physicians in my locality I can see wrecks resulting from morphine and opium that would not have occurred had we gotten out of the old rut and accepted the remedy God designed for the nervous system. I regard it as invaluable for neurasthenia, insomnia and similar affections, and shall always prescribe it with the utmost satisfaction wherever indicated and feel confident of success.

J. B. MORROW, M.D.,

Tulsa, Okla.

The above letter is one of the many received last week from physicians who appreciate Daniel's Passiflora. As a true and natural sedative it is incomparable, and is being universally employed by the medical profession.

"Kelene" (Fries Brothers) is a pure chloride of ethyl and is furnished only in new glass automatic spraying tubes; no empty returned tubes are ever accepted.

As preliminary to ether and chloroform in general anesthesia it gives the utmost satisfaction. Complete relaxation is affected in thirty seconds with entire freedom from disagreeable or dangerous after effects. When chemically pure, "Kelene" is a stable solution.

"Kelene" requires no steam valve for discharge. Simply press the lever, and

the automatic sprayer will do the rest.

Dr. Baradat of Connes, French Riviera, in his address last September before the International Congress of Tuberculosis (Philadelphia) said:

"In other words, the ground or soil is everything, or nearly so; this it is that we must conserve and strengthen, so that it becomes uninhabitable for the bacillus.

It is here that reconstituents are indicated, such as phosphorous, and particularly in the form of FELLOWS' SYRUP of HYPOPHOSPHITES which is wonderfully efficacious. In cases of general weakness arising from tuberculosis and neurasthenia, its use has given me unexpected results.

IDYLLWILD.

BY DR. T. L. LORBEER.

Idyllwild, a dream so fair,
I often wonder, was I there?
Amid its rural scenes delight,
Craggy rocks and peaks crowned white
Tall pine trees, silent, calm, sedate,
As if they'd teach us how to wait
On God to gain repose of mind—
Peace which helps best humankind.
The rustic bridge, the fern, the flower,
Sequestered nook and shady bower
Delight the ones whose sauntering gait
Betoken a blissful tete a tete.
The pearly streams, skip, dance and
glisten
Babbling tales to all who listen,
And rippling a laugh with a joyous run.
They leap the gaps, ah! then what fun
To see the pretty waterfalls and rain-
bows flash
Their silv'ry wit as on they dash
To slopes below to make the grain and
fruit trees grow.
Oh! its a dream you ought to know.
(Dedicated to "The Peak or Bust Bunch.")

Mathie's Malt Tonic

The Perfect Food Drink.

ENDORSED BY LEADING PHYSICIANS
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The stamina of the English and German people is due in a large measure to the use of malt liquors, the salts obtained from the malted barley being of especial benefit. As is well known, MATHIE'S MALT TONIC is a nourishing tonic, enriching impoverished blood and containing a large amount of nerve food rendering it an ideal treatment in all "run down" conditions.

We offer MATHIE'S MALT TONIC for your use. It is palatable, nourishing, stimulating and refreshing, with just enough alcohol to preserve it, and at a price which puts it within reach of all.

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At a very reasonable price, one McIntosh wall plate in fine oak case, nearly new; one Globe Nebulizer with water pump; one McIntosh hand battery, both currents; one Galvanometer. Apply to Dr. R. C. Olmsted, 309 E. Colorado St., Pasadena, California.

T. W. Bishop, M.D. Edith W. Carroll, M.D.
Supt. Asst. Physician.

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This little picture of the old times in the *British Journal of Nursing*, is quaint and curious:

"At the dinner at the Savoy Hotel, held in connection with the opening of the winter session at the London Hospital, Mr. Eve, who presided, gave an interesting account of the hospital as it was just 100 years ago, which was based upon some documents which have recently been unearthed by the secretary, Mr. E. W. Morris. Among the more curious points mentioned were that at that time only two meals were served a day, breakfast of water gruel and bread, and dinner consisting five days a week of meat and on two of pea soup. The hospital secretary was also chaplain, and responsible for the interment of deceased patients in the hospital grounds. The funerals had to be attended by such patients as could leave their beds, and an entry showed that on one occasion the clerk had been reprimanded for reading the service over a number of bodies together instead of separately. At night the wards were left unattended, for the nurses, then known as watchers, were only on duty in the daytime. The head porter and matron had their meals together, living on the leavings of the apothecary. The latter, a person of great importance, was allowed to take

pupils, who slept under the counters of the dispensary. A black book was kept, in which were recorded the names of patients who ran away to avoid the terrors of an operation."

The double action of drugs dependent upon dose. Ipecac in the small dose will relieve irritation of the gastrointestinal mucous membrane, and it will prevent vomiting, an excellent remedy in the small dose for nausea. While employed in the large dose it acts only as an emetic; and is used to produce nausea in case of cough to dislodge tenacious phlegm. Hare, in a paper before the Philadelphia Medical Society, reports that he found by experience how the small dose of quinine stimulates the blood-making centers, while the large dose paralyzes them. In the small dose quinine acts as a tonic and aids in combating various septic processes, while the large dose defeats this purpose. He found that the small dose greatly increased the phagocytic activity of the blood, while it was destroyed for the time by the large dose.

Massage is probably as old as the race. Homer alludes to it; the Egyptians used it; the Turks and Russians combine it with the bath. It was the property of the profession for ages, and yet it remained for Pehr Henry Ling, a Swedish poet, as late as the nineteenth century, to formulate a system of "movement cure." Later, Stille of Missouri elaborated his system and laid the foundation of a new school, which under the name of Osteopathy, has been recognized as a system of practice, whose disciples are yearly growing in numbers and success.

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THE FOOD OF THE ANCIENTS.

The diversity of substances, says a writer in *Health*, which we find in the catalogue of articles of food is as great as the variety with which the art or the science of cookery prepares them. The notions of the ancients on this important subject are worthy of remark. Their taste regarding meat was various. Beef they considered the most substantial food; hence it constituted the chief nourishment of their athletes. Camels' and dromedaries' flesh was much esteemed, their heels more especially. Donkeys' flesh was in high repute, and the wild ass brought from Africa was compared to venison.

In more modern times we find Chancellor Cupret having asses fattened for his table. The hog and wild boar appear to have been held in high estimation. Their mode of killing swine was refined in barbarity as in epicurism. Pigs were slaughtered with red hot spits, that the blood might not be lost; stuffing a pig with asafetida was a luxury. Young bears, dogs, foxes (the latter esteemed when fed upon grapes), were also much admired by the Romans, who were also so fond of various birds that some consular families assumed the names of those they most esteemed. Catullus tells us how to drown fowls in Falernian wine, to render them more luscious and tender. Pheasants were brought from Colchis, and deemed at one time such a rarity that one of the Ptolemies bitterly lamented his never having tasted any.

Peacocks were more carefully reared on the island of Samos, and sold at such a high price that Varro informs us they fetched upwards of £2000. The guinea fowl was considered delicious; but the Romans knew not the turkey, a gift which we moderns owe to the Jesuits. The ostrich was much relished. Heliogabalus delighted in their brains, and Apicius especially commends them. The modern gastronome is, perhaps,

not aware that it is to the ancients he owes his fattened duck and goose livers—the inestimable *foies gras* of France. The swan was also fattened by the Romans, who first deprived it of sight; and cranes were by no means despised by people of taste.

While the feathered creation was doomed to form part of ancient delights, the waters yielded their share of enjoyments, and several fishes were immortalized. The carp was educated in their ponds, and rendered so tame that he came to be killed at the tinkling of his master's bell or the sound of his voice. The fame of the lamprey is generally known; and the sturgeon was brought to the table with triumphant pomp; but the turbot, one of which was brought to Domitian from Ancona, was considered such a splendid present that this emperor assembled the senate to admire it. The red mullet was held in such a distinguished category among gentle fishes that three of them, although of small size, were known to fetch upwards of £200. They were more appreciated when brought alive, and gradually allowed to die, when the Romans feasted their eyes in the anticipated delight of eating them, by gazing on the dying creatures as they changed colors like an expiring dolphin. Snails were also a great dainty; Fulvius Herpinus was immortalized for the discovery of the art of fattening them on brain and other articles; and Horace informs us that they were served up, broiled upon silver gridirons, to give a relish to wine. Oysters were brought from England to Rome, and frozen oysters were much extolled. Grasshoppers, locusts and various other insects were equally acceptable to our first gastronomic legislators.

Gooseberries, red and white currants, pumpkins and melons are refrigerants; and lemons, limes and apples are refrigerants and stomachic sedatives.

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SURGERY IN INFANCY.*

BY STANLEY STILLMAN, M.D., SAN FRANCISCO, CALIFORNIA.

I feel that I ought to ask your indulgence for presenting to you such a childish subject as that of "Surgery in Infancy," but I bring it before you for discussion, because my own experience has led me to the conclusion, that contrary to general teaching, infants stand anaesthetics and surgical procedures as well as, if not better than, adults; provided certain precautions are taken; and because it has been my experience to have seen a good many infants brought for surgical aid long after any aid could save them, through fear of subjecting them to operation, till every other means had been exhausted, as well as the little patients themselves. This is hardly to be wondered at since the idea itself of subjecting a tiny infant to surgical assault is as revolting to the medical attendant, as a rule, as it is to the parents themselves, and he shrinks from urging operative procedures, partly for this reason and more, perhaps, because he shares the common belief that the infant cannot stand the shock. It is the object of this brief paper to give my own conclusions on

this subject founded largely on my own observations and experience, in the hope that they may be useful to some of you in taking a more hopeful view of the situation, when confronted with a condition calling for the consideration of surgical measures in an infant. In the first place then, as to the ability of the infant to stand shock independent of hemorrhage and anaesthetics.

In the first few weeks of life it is astonishing the amount of violence and injury that may be inflicted, without producing any evidence of shock in the little patient. It ought not be wondered at, perhaps, if we consider what the infant has but recently passed through in order to get into the world at all. However, the fact is that infants up to two or three months of age show much less evidence of shock or pain after surgical procedures than they do after that time. I recall a case of sarcoma of the thigh which was noticed a few days after birth, and which grew so rapidly that at the end of a month when it was brought to me, it extended from the pubic bone to the adductor

*Being the address in Surgery before the Arizona Medical Association, May, 1909.

tubercle near the knee along the inner side of the left thigh, the child's thigh being more than twice the diameter of the opposite one at its middle. The entire group of adductors was detached from the pubic bone and removed to their insertion, together with part of the sartorius and the quadriceps, the femoral vessels being exposed for a considerable part of their length, and so much skin removed that what was left could hardly be approximated. It appeared to be a hopeless case of large round-celled sarcoma, but after now, a year and a half, the child still remains free from recurrence. This month-old child apparently suffered no shock whatever from the operation, which was much more severe than a hip joint disarticulation would have been, and did not fret much after the operation.

I recall another case in which I operated for exstrophy of the bladder forty-eight hours after the birth of the boy, and before the mother knew of the condition. The pubic bones were separated an inch or more at the symphysis and in order to bring them together it was necessary to subcutaneously separate the ilia from the secrum along the synchondrosis with a chisel before the pubic arch could be restored and the symphysis closed with wire. The attempt to close the bladder and cover in the raw surfaces called for much cutting and suturing and the whole operation was long and formidable, and I am sorry to say fruitless, but the infant seemed none the worse for its experience and only required paregoric a few times after the operation. The same infant operated at a later age, say six months, would have suffered much more from shock and possibly might even have succumbed to it. Nevertheless, while the same immunity to shock does not exist after the second or third month, still the older infants, in my experience, bear it quite as well as adults. It is these first

months that we consider the best time to do such work as the closure of cleft palate when crushing of the superior maxillae is called for as a preliminary step. The removal of naevi, particularly the cavernous variety, which often grows so rapidly in early life and when occurring on the face is productive of great deformity, is best and most safely accomplished as soon as discovered. The same may be said of other neoplasms, benign or malignant, if they are operable at all. Harelip operation is preferably done by me a day or so after birth. In several cases I have done it before the mother was permitted to see her baby. Almost no anaesthetic is required; the stitches are removed on the third day, the wound supported by a narrow strip of adhesive plaster, and the infant is ready to nurse by the time the mother has milk for it.

My conclusions, then, so far as shock itself is concerned, are that within the first three months of life infants suffer less than at a later period, and that after this time they suffer no more than do adults, possibly not so much. It is generally thought, and commonly believed, that infants do not stand hemorrhages, and that the loss of a much less quantity of blood in proportion to their body weight than in the adult is dangerous. I think this teaching and belief erroneous and without foundation in fact. I have seen infants suffering from acute anaemia quite as blanched as I have ever seen an adult, but I have never seen one die of it, and it is my opinion that infants do stand a blood loss in proportion to their body weight as well as older children or adults, and that the anaemia is rapidly recovered from. Hemorrhage is a potent factor, of course, in the production of so-called shock after any surgical operation, and surgical technique of today demands that all operations shall be done with a minimum of blood loss. There are certain operations, however, necessarily at-

tended with considerable blood loss, but I am no longer deterred from doing such in infants from fear that they will not stand it.

There remains the question of anaesthesia, and I have no hesitation in saying that I am no more apprehensive of the effect of an anaesthetic on an infant than on an adult. I am often surprised at the quantity required to keep them in the proper stage of anaesthesia and it is remarkable how little after effects they seem to experience. As has been stated, very little is required in the early months of life as there is comparatively so little sensibility to pain. While in older children and adults I prefer ether given by the drop method, in infants I strongly advocate chloroform. The administration of the anaesthetic by a competent and skilled anaesthetizer is an essential part of any surgical operation, and such competent and skilled anaesthetizer is presupposed in speaking of infants. There are no special precautions to be observed and no special timidity to be exhibited, however, in the case of infants. I prefer chloroform because less is required, because it takes effect more quickly, because it is more rapidly eliminated, because it causes less secretion from the bronchial tubes and trachea, but particularly because, owing to the low percentage of the drug in the inspired mixture of chloroform and air, there is less chilling of the walls of the air passages and neighboring capillaries, and consequently less tendency to reduction of the body temperature than when ether is used. So much for the three things particularly dreaded in operating on infants.

What, however, infants do *not* stand is first, deprivation of food; second, reduction of body temperature by exposure. All that I have said applies and must be understood to apply, only to healthy, well-nourished babies, and the point I wish most to emphasize

in this paper is that *delay* in resorting to operative measures when indicated is far more dangerous than in older patients—if the delay is associated with loss of body weight, with or without fever and pain. Adults may be deprived of food for some time without loss of much body weight, and may lose a great deal in body weight often without loss of vitality, but it is not so with infants; they lose in vitality and resistance almost immediately when deprived of food. Hence it is that delay is so serious and so often followed by a fatal outcome when surgical intervention is attempted in cases of intestinal obstruction, pyloric stenosis or incarcerated hernia, or other conditions attended by vomiting or inability to take food. All conditions of this character should be operated early. An explanatory laparotomy may be called for and will do the infant no harm if done early, but a successful operation may do no good if done late. If every case of intestinal obstruction could be properly operated on as soon as the fact of an obstruction was clear, and before the infant had lost ground, the mortality rate would be very low. I have the records of eight or ten cases of hypertrophic pyloric stenosis in infants operated successfully on this coast in the past two years by gastro-enterostomy without a death. Two of these were done by myself in infants, respectively three and four weeks of age. All of these cases were under four months, and some had lost in weight, but were all operated early as compared with a series of cases in the East in which the mortality was 45 per cent. Strangulated or incarcerated hernias should be operated at once. I believe that all cases of direct inguinal hernia are *congenital*. At any rate to this extent that the funicular process has not been properly obliterated and that while a rupture may not appear till adolescence or later, this peritoneal tube extends a

greater or less distance within the sheath of the cord and sooner or later will be occupied by omentum and intestine. As soon as the existence of such an unobliterated tube is demonstrated by the occurrence of a hernia in an infant, it should be removed, no matter what the age of the infant, and though I cannot prove it by statistics of late results, my belief is that the mere removal of this tube—the so-called hernia sac—in infancy is sufficient to prevent any further danger of hernia, even though no suture whatever of the canal or rings be done. This much I do know, that I have not had, in the few cases on which I have been permitted to operate, any relapses after simple removal of the sac in infants. I have never had a case of appendicitis in an infant, but I have known of several successfully operated. I have had abdominal abscesses of unknown origin, however, and I wish to urge the practice of more frequently examining infants under an anaesthetic, particularly in cases of abdominal trouble. Dr. William A. Edwards, of Los Angeles, has called attention to the value of a rectal examination under an anaesthetic in babies and I have found frequent use for it. By doubling the infant up and with pressure on the abdomen with the other hand, almost all the abdominal contents can be brought within reach of the examining finger in the rectum. Of equal importance with the prevention of loss of body weight before operation by early operating is the prevention of loss of body heat while operating. I have referred to this when speaking of the tolerance of infants to anaesthetics, and I wish to emphasize it now. The younger the infant and the more its vitality has been lowered by previous illness, the more important it is. Even in minor operations on healthy babies it is well to take precautions in this regard. An excellent practice is to make roller bandages of sheet cotton wadding,

torn in strips and sewn together at the ends so as to make a long strip, and to bandage the limbs with them, applying sterile gauze bandages over them. The rest of the body should be similarly enveloped in cotton except the field of operation itself. The operating room should be warm and the operating table should have a row of rubber hot water bottles placed side by side on it covered with a blanket on which the infant is placed. The infant needs no covering other than sterile towels when so prepared, and care should be taken that no damp towels remain in contact with the exposed skin. The delicate skin of an infant needs no preliminary preparation, and the immediate preparation should be done without getting things around the baby wet. In abdominal cases it is more important even than in the adult, that the abdominal contents be kept, as far as possible, within the abdomen during the operation, and that if warm towels are used to protect them when exposed that the towels be *kept* warm. So far as operative technique is concerned, I use, and would advise the use of the same instruments one is accustomed to use, rather than strange instruments presumably better adapted to the size of the little patient. One finds that his own hands are the biggest and clumsiest instruments after all, and most in his way. So far as suture materials, etc., are concerned, they should be such as one is accustomed to and common sense dictates, but sutures should be removed early. Repair is very rapid and in ordinary wounds they should be removed in twenty-four to forty-eight hours and the wound supported by adhesive plaster. Laparotomy wounds are best closed by fine interrupted silk-worm gut sutures and should be removed by the sixth day, and the wound supported by a band of adhesive plaster encircling the entire body and overlapping at the ends. No attempt

should be made to suture by layers. In the event of hemorrhages I would advise caution in the use of normal salt solution given hypodermatically. It is apt to be overdone, and I have seen a large area of skin destroyed by the injection of water at a temperature that would have done no harm to an adult.

In conclusion permit me to say that as doctors are supposed to be teachers,

I think it is a part of our duty as such to teach that tiny infants can be submitted to severe surgical procedures when necessary as safely as their parents can, and that their little lives, or future happiness, should not be sacrificed through ultraconservatism or unreasonable delay, the result of an ancient teaching which I believe to be wholly erroneous.

PELVIC INFECTION—A CASE FOLLOWING LABOR, INVOLVING THE TUBE, OVARY, PELVIC PERITONEUM, SIGMOID CAECUM AND APPENDIX.*

BY FRANCIS M. BRUNER, M.D., SANTA ANA, CALIFORNIA.

The term "pelvic infection" is used advisedly, as all pelvic inflammations can be traced to an infecting agent. Also, by pelvic infection is meant all inflammatory affections of the uterus, tube, ovary, and pelvic peritoneum.

Salpingitis, pyosalpinx, ovaritis, ovarian abscess, Pariand parametritis, pelvic-cellulitis, and pelvic-peritonitis, all owe their origin to one cause; infection of the pelvis.

As the brilliant Pryor, in his lectures in the New York Polyclinic, said: "It is not difficult to trace these various affections to the same source of infection."

A salpingitis is the distributing point, so to speak, of all pelvic inflammations; you could with as much propriety speak of the peritonitis and abscess following appendicitis as being independent of that affection, as to separate these various pelvic infections from a primary salpingitis; they are all the same infection developed to varying degrees of intensity.

In the tube, unlike the appendix, there is an open extremity through which the infecting material escapes into the free peritoneal cavity of the pelvis. The

amount of tissue involved depends upon two factors; the resistance of the individual and the virulence of the infecting agent. Thus, there may be infection of the tube only, or it may push on through the fimbriated extremity of the tube into the peritoneal cavity and set up a pelvic peritonitis, in some instances limited to an ovaritis with its complicating abscess; in others, spreading to the whole pelvic peritoneum.

From the preceding it is evident that all pelvic diseases have a common origin; also, that they are caused by a very limited variety of infections.

Inflammations due to the infections of the pelvis constitute, by far, the majority of the diseases of women. They also constitute the most dangerous and incurable diseases the physician has to treat.

In this class of cases, particularly, it is far easier to prevent than to cure the disease. In the case of a pelvic infection that has swept like wildfire through the pelvis, although the patient may escape with her life, there is left behind a life of invalidism the most distressing that can fall to the lot of womankind.

*Paper read before the Fortieth Semi-annual Session of the Southern California Medical Society, held at Santa Ana, Cal., December 1-3, 1908.

CAUSES.

From a careful study of the causes which are responsible for pelvic infections, two stand out pre-eminently above all others: Sepsis and specific infection. Those rare cases given by some as causes of pelvic infection, such as sudden suppression of menstruation, ovarian cysts, etc., to my mind do not constitute sufficient basis for such a contention. Very rare, indeed, is a case of pelvic infection that is not directly traceable to an abortion or gonorrhea.

In years gone by, we would have had to add to this list puerperal infection; but that dark period in the history of obstetrical practice is past, thanks to Semmilweis, Holmes and others. I do not wish to be understood as saying that suppression of menstruation or cystic tumors of the ovary are not accompanied by pelvic inflammation; but when they are, careful investigation, in almost all cases, will demonstrate a history of previous infection. The inflammation accompanying a tumor is of a far different character than that of a septic infection. Again, it is exceedingly doubtful if the traumatism of a labor or instrumentation ever produced pelvic infection. It is my belief that there must be the added factor, sepsis, through a previous infection lying dormant, aroused to activity by the labor or instrumentation. That any physician or instrument would be so dirty as to introduce infection into the parturient canal is almost beyond belief in this age of asepsis and antisepsis.

If a woman suffering from infection of the pelvis should become pregnant, and the traumatism of a labor or abortion be added to such a condition, it would be a marvel, indeed, should she escape from a relighting of the fires of her old trouble and a spreading of infection through the pelvis.

The peritonitis accompanying suppression of menstruation is of a different character entirely from that of an in-

fection. It is doubtful, indeed, if it be a true inflammation, rather a congestion, which, as a rule, is completely relieved by rest in bed and depletion.

As has been before stated, all pelvic infections are directly traceable to two causes, sepsis and specific infection. Septic infection gains entrance in only two ways: By wound made in operations, and child-bearing and abortions. A close scrutiny of all tabulated reports confines the investigator to two causes of pelvic infection: Puerperal infection (meaning labor and abortions); or sepsis and gonorrhoea or specific.

The first symptom of a gonorrhoea is usually a vaginitis, rapidly spreading to the uterus producing an endometritis, from there to the tube, on to the ovary and pelvic paritoneum. This is usually accomplished in a very short time; very rarely, indeed, is an infection of the vagina limited to that part alone. On the other hand, very seldom does an infection of the uterus get beyond that organ.

In puerperal cases, however, the infection spreads almost invariably through the uterus to the tube and pelvic peritoneum, this being due to the greater facility for the spread of infection after labor or abortion. It is also a fact that the rapidity of the spread of puerperal infection is one of the strongest proofs against the theory of infection being carried by the lymph spaces through the uterine walls to the peritoneal surfaces; such cellular infection is far more frequently the result of peritoneal infection. Again, it is rare, indeed, to find the anterior surface of the broad ligament and uterus involved. The rapidity of the spread of the infection prevents the sealing up of the fimbriated extremity of the tube; as a consequence the infection escapes into the pelvis to the free surface of the posterior wall of the broad ligament. The inflammation produced by pelvic

infection is the same wherever found, having only anatomical limitations.

Fortunately, nature meets the situation more than half way by firmly sealing up the infection within the tube; the fimbriated extremity once securely closed, there is little danger of a spread of the infection through its walls. This, however, does not obtain in virulent cases, as all resistance of the uterine and tube walls disappears under the deadly touch of the infection; the tissues become so friable that it is almost impossible to get a stitch to hold, a ligature will cut down to the blood vessels without meeting with any more resistance than is afforded by the tissue of the liver, making mattress sutures the only successful method of application.

The infection may be from any source, but the resultant inflammation is the same. Whatever the tissue involved, there is, first, a congestion, then effusion. Resolution may, or may not, take place at this time; if not, then organization or suppuration follows:

Whether the inflammation be on peritoneal or mucous surfaces, there is always some exudation into the cellular tissue beneath. The degree of this involvement of the tissue depends largely upon the virulence of the infecting agent. In inflammation of the mucous surfaces, the mucous poured out into the uterus finds a ready outlet into the vagina; it is an entirely different story in the tube; here the swelling of the mucous membrane may constrict one or both ends of the tube, damming up the mucous, forming the so-called hydro or pyo-salpinx. If, on the other hand, the uterine end of the tube remains open, this secretion will find a ready outlet through the uterus. But if the opening be closed, then the dangers multiply, for the sealing of the fimbriated extremity of the tube must follow. Indeed, even now, nature's efforts at protecting life by securing the pelvic peritoneum from infection may prove futile, on account

of the virulence of the infection causing the cellular infiltration to push on through the entire wall of the tube, infecting the pelvic peritoneum.

This effusion into the cellular tissue is the cause of the hard boardlike feel of the pelvic wall, broad ligament and tube. In favorable cases there will be absorption of these products of inflammation, and normal health will be regained. Should anything interfere with nature's carrying away these products of inflammation, then there is a gradual hardening of the tissues involved, and organization takes place. If, however, infection of this lymph infiltration occurs, then suppuration will ensue, with more or less destruction of all the tissues involved. In cases of puerperal sepsis, the traumatism thereby produced, the wound left at the site of the placenta, the shreds of tissue adhering to the uterine wall, afford a favorable opportunity for infection.

That such conditions do not occur more frequently is due to the fact that the products of suppuration, instead of being absorbed and deposited in the cellular tissues, are carried directly into the blood vessels by the lymphatics, without involving their walls in the inflammatory process. In the blood stream septic material is quickly rendered non-toxic and eliminated.

The prognosis of pelvic infection necessarily must be guarded. The wide range of variability in the degree of inflammation, as a simple endometritis, salpingitis, ovaritis or peritonitis, to the most virulent infection of those organs. In the simple forms of infection there is only a catarrhal condition; on the other hand, in the virulent forms, cellulitis and suppuration, with general suppurative peritonitis may obtain; conditions widely separated, yet produced by the same cause.

SYMPTOMS.

The symptoms vary from slight discomfort to the most intense agony.

There is no disease from which a person can die that is accompanied by more intense suffering than death from septic peritonitis.

In pelvic infection there are three important symptoms: Pain, hemorrhage and uterine discharge. The pulse and temperature, also, play a conspicuous part, when suppuration occurs; the symptoms of septicemia are added to those already enumerated.

Briefly, the symptoms of inflammation of the uterus, tube, ovary and pelvic peritoneum are not easily separated. Indeed, so seldom does an endometritis exist without salpingitis that the symptoms of one include the others. So, also, with ovaritis and pelvic peritonitis; so that there is an overlapping of symptoms in each of these theoretically separate infections; and, for the sake of brevity and the avoidance of needless repetition, it will be understood that the symptoms of pelvic infection are general, and not specific. The attempt to separate and individualize the various inflammations of the pelvis, by separate and distinct symptoms, is interesting to the theorist, but not to the practical man. Therefore, be it understood that when a woman presents herself, suffering from one or all the three cardinal symptoms, pain, hemorrhage and uterine discharge, accompanied by fever and rapid pulse, it is safe to suspect pelvic infection.

PHYSICAL SIGNS.

The physical signs of pelvic inflammation are pretty much the same, no matter what may be the source of infection; the products of the inflammation are the same, differing only in degree.

Every case of pelvic infection is a rule unto itself; no two tubes or ovaries are affected in exactly the same way. The physical signs are closely woven together, and must be viewed together.

Catarrhal salpingitis: Physical signs entirely absent. Hydrosalpinx usually

involves both tubes; uterus and tubes usually movable; deep palpation along side of the uterus usually will develop a tumor tubular in shape, leading to the uterus and out along the broad ligament. Frequently, however, the tube is displaced downward and is closely adherent to the posterior wall of the uterus, in which case it would not be possible to outline the tube from above.

Pyosalpinx and hoematosalpinx have nothing special to distinguish them. The apparent size of the uterus, tube or ovary, on palpation, fades away when the abdominal cavity is opened, in the majority of cases. In pus cases, with cellular infiltration of the tissues all about, or simple serous infiltration, the physical signs are practically the same; suppuration processes, as a rule, being accompanied by a more dense infiltration of the tissues, and the consequent boardlike feel to the touch.

DIAGNOSIS.

Catarrhal salpingitis is not susceptible of practical diagnosis; this condition being dependent upon a subsequent endometritis; additional symptoms are so slight as to escape the notice of the patient.

In hydrosalpinx the presence of a tumor in the region of the tube, tortuous and tubular in shape, with a manifest connection with the uterus by a constricted narrow portion with limited motion; the ovary independent and posterior to it; points to a tumor in the region of the tube, right or left, as it may be; this is about as far as it is safe to say. Opening the abdomen may disclose a hoemato-salpinx, pro-salpinx, par-ovarian cyst or extra-uterine pregnancy.

It is true that, as a rule, par-ovarian cysts are round, and an extra-uterine pregnancy, coupled with the symptoms of pregnancy, if watched carefully, can be differentiated. Again, a large hydrosalpinx will assume the round shape of an ovarian cyst.

Nothing is more deceptive than the physical signs and symptoms of pelvic infection. These patients present themselves for examination, complaining of the most intense suffering; yet a careful examination under ether, discloses no condition justifying such complaints; when the fallopian tubes or ovaries cannot be palpated, or are found to be perceptibly enlarged, no operative procedure should be undertaken. Rectal examination will permit the more perfect palpation of the pelvic contents, where the usual bimanual method fails to be satisfactory. With strong tenaculum attached to the cervix, drawing down the uterus well into the pelvis, the whole posterior surface of the uterus and broad ligament, ovary and tube can be successfully outlined. In those cases, however, where a heavy plastic exudate has occurred, imbedding the pelvic contents so firmly that they are immovable, it is an utter impossibility to determine the condition of the pelvic organs by physical examination.

Women suffering from the effects of pelvic infection rarely recover completely their former health; a condition exists which is prone to cause a recurrence of the trouble upon the slightest disturbance. Menstruation becomes painful, prolonged and profuse; such women abort should they become pregnant. In this class of cases, particularly, by far the largest number are supplied by that hybrid anomaly, without either conscience or soul, the abortionist. Gonorrhoea, it is true, claims its share of these victims, but it has been my experience that the production of abortion claims the largest number.

Suppuration, when it does occur, adds to the symptoms already given those of septicemia; the convalescence after confinement is slow, or not at all. Temperature 100 to 104 degrees; pulse 100, with gradual loss of strength.

Peritonitis does not occur in women without a preceding endometritis or

salpingitis. The only exception to this rule is when the pelvic infection is caused by an appendicitis; and we know that these cases are extremely rare, and, with them, the question might well arise, did the infection originate in the fallopian tubes, or in the appendix. In either case, the diagnosis would rest upon the history; the result is identical; salpingitis plus peritonitis. A salpingitis, or hydrosalpinx, without peritonitis, is painless; it is the peritonitis that produces the deposits of lymph about the pelvic organs, with all the adhesions, pain, disordered menstrual function, etc. This is nature's method of heading off an advancing inflammation. The process may be repeated until all the contents of the pelvis and lower abdominal cavity are matted together in one indistinguishable mass, before the inflammation is stayed. These masses, if suppuration does not occur, usually are absorbed and disappear under treatment; in case the lymph deposits becoming infected, suppuration and abscess formation follows.

TREATMENT CURATIVE AND PREVENTIVE.

In proceeding to the development of this phase of the question, every operator follows the course which has given him the best results; so that my endeavor shall be to give, briefly, general rules, and not to burden you with personal experiences of no particular importance.

When pus is present it must be given a free outlet; this can be effected only by an operative procedure: Laparotomy, or posterior vaginal section. No routine method of procedure can be advised. When the inflammation is accessible from the vagina, the posterior vaginal section affords an ideal treatment; on the other hand, where the inflammation is high above the pelvis in the ilio-cossa, additional laparotomy must be performed; all adhesions broken down, appendages dropped down into the pelvis, destroyed, ovary or tube removed,

everything wiped clean, and abdominal opening closed. Dependence for free drainage can safely be left with the vaginal opening below.

The preventive treatment of pelvic infections lies in a more conscientious performance of our duty as physicians, in all puerperal cases. The sin of omission is more common than the sin of commission. An unswerving attitude of hostility toward all solicitation for the production of abortion is essential. If we would use as much brain tissue in devising ways and means to reinforce and strengthen pregnant women, while they are going through the trying ordeal of the earlier months of gestation, as we do in devising excuses for our own weakness and cowardice in yielding to the importunities of our patients, the world would be proportionately freer from suffering.

In closing this subject, a final word as to the results of pelvic infection will not be out of place.

Vaginal infections, as a rule, if promptly met, are limited in their course, and a perfect recovery obtained. It is when these inflammations of the vagina are neglected, or improperly treated, and the infection allowed to spread to the uterus, that real danger begins to threaten. For, if vigorous and prompt measures are not used to overcome the advancing infection, the tube will be next invaded and, finally, the ovary and pelvic peritoneum. But if the infection be checked within the uterus, by prompt cleaning out and drainage, the result will be a perfect recovery. Here the battle royal must be fought, so far as we, as physicians, are concerned; for the moment the infection invades the tube, it passes completely beyond our control. Infection of the tube, although life may be saved, in the majority of instances, means sterility, to say nothing of the resultant life of misery and disappointment.

CASE A. E. S. II PARA.

Confined August 14th, 1908; labor normal. Male, weight eight and one-half pounds. The mother strong, healthy woman; delivered of first child, June 17th, 1907.

During her last month of pregnancy, the patient was annoyed by the dribbling of the amniotic fluid; this sometimes amounting to quite a splash; this continued until labor set in, resulting in a dry labor.

August 17th: During the afternoon, the patient complained of feeling chilly; temperature 103.2-5; pulse 100. The vagina and uterus were immediately examined and found to be clean; no tenderness in vagina or uterus. There was some tenderness, however, in the left ilioce region, which could be brought out only by deep pressure down through the abdominal wall; pressure in the vagina did not bring it out at all. The patient was carefully watched at home; treatment appropriate to her condition being vigorously pushed. No improvement taking place, and a hard mass developing in the region of the left tube and ovary, the patient was taken to the Santa Ana Hospital. Abdominal section revealed the omentum adherent to the parietal walls, which had to be loosened with the finger before the mass could be exposed. A sero-sanguinolent fluid filled the pelvic cavity, and ran out through the abdominal wound. After the removal of the adherent omentum, careful inspection revealed the ascending colon lying on the left side of the vertebral column, parallel with the descending colon; both bound down by adhesions to the mass in the left side of the pelvis. After separating the adhesions between the mass and the abdominal wall, the tube, filled with pus, was freed, the fibriated extremity was found firmly adherent to the sigmoid, as it dipped down into the pelvis. The coecum was firmly adherent to a very large ovary, about the

size of a lemon; the appendix was firmly bound down to the bottom of this mass; so firmly, indeed, that it was necessary to amputate it at its junction with the coecum, and remove it with the tube and ovary; the right tube and ovary was not involved at all. After carefully cleaning out the pelvis, the abdominal wound was closed. Examination of the appendix found it in a necrotic condition, for three-fourths of its length. The adhesions about it were the firmest; indeed, so firm were they that efforts to free it were abandoned,

and amputation performed instead, for fear of rupturing it in handling.

Query? Did the infection in this case come from the appendix, or was the appendix infected from the infected tube?

The interesting features of this case are the transposed coecum to the left side of the abdomen cavity, the small intestines occupying the right ilio-fossa; the relation of the appendicitis to the pelvic infection, suppurative processes having advanced much farther in it, than in any of the surrounding tissues, are questions of considerable interest.

DIET REGULATION FOR DYSPEPTICS.*

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The problem of diet regulation for patients with digestive diseases is a large one; to take up this problem for each disease separately would take a great deal of time, and I shall be compelled rather to discuss some of the general principles which should guide us in this field of therapeutics.

To begin with a very important principle, we must teach our patients to use their teeth; and in order to use them properly they must first have the teeth. They must not rest content as the old fellow did who said that he had only two teeth left, one above and one below, but thank God they hit. The teeth should be complete and well kept, and they should be used on every mouthful of food until it is perfectly fine, whether that process requires thirty-three chews by count or more or less. Three important results are secured by this—the avoidance of undue mechanical irritation of the stomach, the full effect of salivary digestion—which is by no means unimportant—and the increased gastric activity, which as is well established, follows thorough chewing and insalivation of the food. A fourth

point is that the slow eater is much less likely to overload his stomach.

In a great many of our cases it is much more essential to impress these facts upon the patient than to tell him what kind of food to eat.

Another principle not to be lost sight of is that the dyspeptic should eat his food amid the pleasantest surroundings possible. You go to a banquet and you mix up a very remarkable assortment of things in your interior, but the chances are that you have no discomfort afterward—unless you are one of the speakers. You take these things slowly, in courses, in the midst of bright lights and music and pleasant conversation. But suppose you go alone to a restaurant and hurry through a menu of this sort in twenty or thirty minutes. Will you not find something decidedly wrong a little later? What a dreary time has the dyspeptic who must go three times a day to a restaurant and look over a bill of fare racking his brain for something he is not sick of and that he can digest. Even a boarding-house is better than this, for at least there is someone to talk to there.

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Well, we will suppose that our patient is seated at the table, with his family or such choice companions as he can assemble about him; the lights are turned on full or the sunshine is streaming in. He has resolved to leave his business cares outside and to eat slowly and to chew his food. And the cook has been instructed to make the food appear as attractive as possible. What may the patient eat?

In answering this question many things have to be considered. Chief among these are: the condition of gastric motility, and of gastric secretion; of pancreatic and intestinal digestion; the presence of diarrhea or constipation (atonic or spastic); and the presence of such complications as rheumatism or gout, nephritis, obesity, or malnutrition and anemia; and the trouble is that the patient is likely enough to have several different disturbances at one time, so that the selection of a proper diet is not easy.

Supposing that we have satisfied ourselves as to all the preceding conditions, in order to intelligently direct the patient, we must further know the effects of the different kinds of food.

With regard to gastric motility: it is usually safe to say that when this is impaired the physical condition of the food is of more importance than the particular kind of food. Here it is absolutely necessary to have the food finely divided (best by the teeth). It should be nourishing and given in small amounts, at relatively short intervals. These stomachs must not be weighted down with masses of bulky or sloppy food. Soups, coarse vegetables, and any considerable quantity of beverages at meal times are especially bad. Fats are not usually well borne where motility is impaired; stagnation in the stomach, they are partly broken up, with the formation of irritating fatty acid.

Together with gastric motility we must consider gastric secretion. If we

have an overactive gastric juice we must carefully avoid such foods as will further stimulate production. These stimulating foods are: meat, and especially meat-extracts and broths; mustard, horse-radish and other spicy foods; acids; salt; smoked meats, caviar, etc. Starchy foods are much less stimulating, while sugars are said to diminish gastric secretion.

Here comes in the old controversy between the two schools of treatment of hyperchlorhydria. One school says, give the patient much meat and other albuminous food; these foods combine the acid and spare the stomach and are promptly digested, whereas starch digestion is interfered with by the excess of acid. The other school says, that's a very nice theory, but if you give the patient much meat his gastric juice will go on getting more and more acid and his last state will be worse than the first. Give him plenty of carbohydrates and fats, but cut out the meat. In my judgment the middle ground is safest—to cut out all broths, meat-extracts, sauces, gravies, spices, etc.; to give a diet rich in carbohydrates and fats at the regular meal time, with only a very small amount of meat; to give at the height of digestion, when the free hydrochloric begins to irritate, some bland albuminous food such as milk or egg; or if this interval meal seems unwise in the particular case, the excess of acid can be neutralized by alkalis.

If gastric secretion is insufficient, the judicious use of some of the above stimulating foods and condiments is permissible. A little caviar on toast, or a small oyster cocktail, or a plate of bouillon not only helps the appetite, but actually stimulates the lazy stomach to more efficient work. But these things must be used with much moderation and judgment; overstimulation may hasten exhaustion and produce inflammation. In these subacid cases starches

should be especially well-digested, because the saliva has freer play. Fats, in spite of their tendency to lessen secretion are usually well borne. Meats and other heavy albumins must be used with caution in subacidity; but if motility is good and the pancreas active, meat may be well borne; if gastritis is present this is unlikely. In subacid conditions, fluid at meal times should be given in very limited amounts, in order to avoid dilution of the gastric juice.

When we have complete achylia gastrica to deal with it is generally useless to try to produce gastric juice by stimulating foods. We must see that the food is finely divided, because it will leave the stomach in much the same condition that it enters it, and we must make the task as easy as possible for the pancreas and intestines; moreover it is important to avoid mechanical injury to the pylorus by coarse fragments of food; such injury often repeated may lead to pyloric hypertrophy or even to carcinoma.

It would seem rational in this condition to use meat and other albumins sparingly, since the usual digestion of these in the stomach is cut off; but in reality these patients can often handle a good deal of meat. We do not realize how common achylia gastrica is. It is not rare to find a virtual achylia in persons undergoing a routine gastric examination—students, for example—these persons having no dyspeptic symptoms, and eating with impunity whatever pleases them. On the other hand, some of these cases present a serious problem, especially when the achylia is due to gastric trophy. Very likely the same causes that produced the gastric atrophy have reduced the efficiency of the pancreas and other infra-pyloric glands. These patients have a very narrow margin for transgression of dietic rules, and usually pay promptly for any such transgression. It is these patients who are especially apt to suffer from

lienteric diarrheas brought on by undigested and fermenting food. There is no fixed diet for these cases; it has to be worked out—perhaps a little scraped or finely chopped meat, suitable carbohydrates partly dextrinized. Fats are stimulant to pancreatic secretion and ought to be good, but they must be *tried* for they may cause much trouble. Sometimes we get striking results in these cases by the administration of hydrochloric acid. We do not replace the missing Hcl by giving 20 or 30 drops of the acid, but hydrochloric, and other acids in lesser degree, are powerful stimulants to pancreatic secretion, and this is probably what we accomplish.

In prescribing a diet for a patient with any form of digestive disturbance we can never ignore the presence of constipation or diarrhea. One condition or the other complicates nearly every case, and the diet suitable for the chief digestive disturbance must be modified so as to regulate the bowels also if possible. The diets suitable for these cases are too well known to be discussed here.

Again, in prescribing a diet for a dyspeptic we must have in mind any rheumatic or gouty tendency, and prescribe accordingly. I do not refer now to patients suffering with open acute or subacute gouty or rheumatic symptoms. Naturally in these cases we will be careful to use the proper diet. But a rheumatic or gouty diathesis must be borne in mind, so that we may not direct such foods as shall stir up latent trouble.

In like manner we must not lose sight of a chronic nephritis in a patient whose chief troubles seem to be dyspeptic. The gastro-intestinal disturbance may be entirely independent of the nephritis and may cause the patient much more trouble; but they must not be treated independently. For example, we may have a nephritis patient who has a chronic subacid gastritis. His appetite

is poor and he seeks to stimulate it by the use of more salt, of pepper and mustard, of strong meat broths, salads, sauces and perhaps alcohol. If the gastritis alone were present the careful use of some of these things would be quite allowable; but what a grave injury we should do our patient with nephritis if we let him go on using these things.

In regard to obesity, it may well suffice to remind you that fatness is not synonymous with good nutrition. Because a man is fat and at the same time suffers digestive disturbances is not sufficient reason for telling him to cut down his food to a low caloric value. If he is a gourmand, florid and strong, this is probably just what he needs dietetically. But if he is flabby and anemic and nervous, you may get better results by building him up with such nourishing food as his digestion permits. Each case is to be thoughtfully studied by itself.

Malnutrition and anemia are the rule in dyspeptics, but they call for separate consideration and emphasis. In some cases, as for example, carcinoma, ulcerative colitis, and cirrhosis of the liver, they are the inevitable result of the disease itself. But in many other cases these symptoms are due solely or chiefly to the patient's real or imagined inability to take sufficient nourishing food. And a very essential part of the treatment is to see that they get enough food. It is astonishing how these patients will diet themselves; for weeks

they will go on living on a sloppy diet of toast and tea and broths and breakfast foods, getting weaker and more distressed all the time. You surprise them greatly if you decide that they need a square meal and tell them so; and their surprise increases when they find, as is often the case, that they are much more comfortable after the square meal than after the sloppy food. The gastro-intestinal patient who is run down needs his food more than he ever did before, and probably he is able to take care of a good deal more than you or he are willing to believe. Look at the diet-list for gastritis in one of the German text-books—it almost takes away your appetite to look at it. The Lenhartz ulcer cure provides a large amount of nourishing food, and the results are good. Perhaps the most striking effect is seen in the full feeding of nervous dyspeptics. Feeding, like all other therapeutic measures, calls for judgment and study, but if you are going to get your chronic dyspeptic better, you must give him enough food.

We see then that the regulation of diet for dyspeptics is not a simple thing. It will not do to tear off a printed diet-list for "ulcer," or "gastritis," or "hyperchlorhydria" and hand it to the patient. We must feed the whole patient, not his stomach or his liver or his intestines alone. To do it intelligently we must know our patient from head to foot, inside and outside; and we must know what the different foods will do.

THE PHYSICIAN'S DUTY TO THE PUBLIC.*

BY JOHN W. FOSS, M.D., PHOENIX, ARIZ.

The physician fills one of the most responsible positions in the social life of a community. the public as mentor and personal friend, one to whom they may come for counsel and advice as well as for sympathy and relief.

A man of more than average attainment and ability, he is looked upon by The physician has certain valuable

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privileges both social and professional. He is exempted from certain public duties because of his professional exactions. For all of these reasons, but more especially because his calling is the most altruistic of all the learned professions, he owes certain duties to the public which he should perform most cheerfully and heartily.

It is the physician's duty to give advice to the youth of his community on all matters pertaining to general health and hygiene. Especially should he, by public lectures and confidential talks, explain to them clearly the dangers attendant upon all excesses, particularly those pertaining to the organic functions.

Many a life has been ruined, family happiness destroyed, diseased offspring set afloat on the stormy sea of life condemned to years of misery and suffering—in fact, born to a veritable hell on earth—when a few confidential, earnest talks, clear and simple explanations to the prospective parents in their youth, would have saved the offspring a lifetime of misery.

This education of the youth by the family physician I consider one of the most important duties to the public, most pregnant with beneficial results both to the present and the future generation.

The physician is the guardian of the public health. He is depended upon to warn when danger threatens. It is his duty to educate the public in all matters pertaining to personal and public

hygiene and sanitation. To thoroughly acquaint the people with all prophylactic measures. To caution against infection and teach all simple means and methods of protection. When we realize that tuberculosis is not only a curable, but a preventable disease, can we say how many of the 150,000 people who died from this great white plague last year would have been living as useful workers in our economic structure if each physician of this country had faithfully done his full duty to the public during the past fifty years?

To manifest his broadmindedness and liberality, as well as his interest in the public welfare, the physician should be acquainted with all the problems of public policy and public development, as his influence with his patients will leave its imprint on their mind either for benefit or detriment of the public welfare. The opinion of the man who is called to do battle with that grim monster, disease, and its attending angel, death, must necessarily through this manifested confidence, mould in a very marked degree the thought and action of those with whom he comes in contact. Let us then realize our great privilege, manfully assume the grave responsibility which these privileges entail, and endeavor by earnest endeavor and honest effort to discharge to the public the duty we so justly owe.

To thine own self be true,

Then it must follow, as the night the day,

Thou canst not then be false to any man.

MEDICAL TREATMENT OF DISEASE OF BILIARY TRACT.*

BY E. W. HANLON, M.D., LOS ANGELES, CAL.

No subject in medicine is of more interest and importance or more in need of study than the causation, diagnosis and treatment of the milder primary affections of the biliary tract. These

primary lesions are not usually serious in themselves, but through their complications and sequelae they are the cause of much suffering and ill health and of many deaths. With the second-

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any condition of severe cholecystitis, gallstones, adhesions or perforations we are only too familiar, but our knowledge of the causation, the predisposing factor and the treatment of the primary affections is both inaccurate and incomplete, yet it is certain that if we can learn to recognize and to treat the milder cases we will not so often be called upon to deal with the more dangerous lesions.

If in the course of this paper some reference is made to conditions that are essentially surgical, it is not for the purpose of advocating medical rather than surgical treatment, but because it not infrequently happens that operation is refused or for some reason deemed inexpedient, and then we are compelled to do the best we can to check the progress of the disease, prevent complications, relieve symptoms and make the patient comfortable.

Acute cholangitis and acute cholecystitis in their milder forms and without icterus are, I believe, much more common than is at present thought, and it is very probable that many of the cases at present diagnosed as biliousness, acute gastritis, acute intestinal indigestion, torpid liver, bad stomach, etc., are really mild grades of catarrhal cholangitis or cholecystitis. The cases of more severe type with obstruction enough to cause icterus are more easily recognized. The most common causes of these conditions are: 1st, The irritation of the mucus membrane produced by the excretion of toxic materials through the bile; 2nd, Bacterial infection either through the blood or by entrance of bacteria from intestine; 3rd, The extension of a pre-existing inflammatory condition of the intestine.

The indications for treatment are:

1st. Relieve the inflammation and remove the obstruction to the free flow of bile into the intestine. This obstruction is usually due to swollen membrane

or plugs of thickened secretion or to the infiltrated condition of the adenoid tissue in the bile duct.

2nd. Relieve the symptoms caused by the general poisoning.

3rd. Prevent or relieve disagreeable digestive symptoms due to the absence of bile from intestine.

For relief of the local conditions dietetic measures are of more importance than medicinal ones, and if the obstruction is complete or nearly so it is well to give plenty of water and as little food as possible. The withholding of food relieves the intestinal irritation, prevents or relieves the congestion of the foetal system and gives rest to the liver cells. What food is given should be mostly liquid and easily digested. Give no fats, sauces, spices or any of the richer or coarser foods. Skimmed milk, buttermilk, milk soups, white of egg, tea or toast constitute a suitable diet. As medicines in the early stages, the sodium salts are the most valuable. They can be given as carlsbad salts or as the sulphate or phosphate and should be given well diluted in warm water and will serve the double purpose of depleting the portal system and preventing constipation. When some bile appears in stool, showing that obstruction is not complete, small doses of calomel or podophyllin are of decided value.

The disagreeable digestive symptoms that are so often present can usually be prevented or relieved by the use of the simple diet above mentioned and especially by the avoidance of fat and the prevention of constipation.

Treatment of special symptoms.

The jaundice and general poisoning are best treated by means of free elimination through kidneys, bowels or skin.

Liquid diet, large quantities of water and the alkaline diuretics such as the citrate or acetate of potash will usually be sufficient to keep up a free flow of

urine. When these do not prove sufficient the injection of normal salt solution into the bowel will prove of value. Warm baths will serve the double purpose of promoting elimination by the skin and relieving the itching, which is often an annoying symptom.

Other means of relieving the itching are the bromides or atropine internally, and washes of sodium carb., sodium bicarb (3ii Oj), vinegar and water, alcohol or a 1 per cent carbolic acid solution in glycerine and water. Some care should be used with the carbolic acid as symptoms of poisoning have been reported after its use. For the nausea, counter-irritation, lavage, chloroform water, calomel in small doses, bismuth, oxalate of cerium, ice pellets may all be tried. In the course of a few weeks, the bile coloring matter are no longer found in the urine, the icterus has disappeared, the patient is free of symptoms and is pronounced cured and neither he nor his physician give a thought to the future.

This disregard for what may occur in the future is a grave mistake, for though all symptoms of disease have disappeared there can be no doubt that there often remains a slight inflammatory condition which may at any time and on slight provocation become acute and which renders the biliary tract vulnerable to the attacks of the coli, the typhoid and the pus bacilli which are usually the immediate and exciting causes of the more serious conditions.

The after treatment of the primary attacks may also be called the preventive treatment of severe cholecystitis, cholelithiasis gallstone colic, etc., all of which are either directly or indirectly the product of infection or stagnation of bile.

Diet is again the most important measure in treatment. If you will take the trouble to read the diet lists given in the various articles written on this

subject you will find that you can make a selection that will allow your patient about everything he has the money to pay for, or on the other hand you might convince yourself that there is hardly a single article of food that your patient could eat with safety. All this disagreement as to diet is simply proof of the fact that neither our knowledge of foods and their digestion nor of the functions of the liver nor of the excretion of bile is sufficiently full or exact to justify us in being very arbitrary in a selection of foods. Quantity is more important than quality. Excessive eating and overloading of stomach must be avoided. As a general rule small meals frequently repeated and of simple, easily digested food are to be preferred to larger meals given at greater intervals as the stimulation given to the flow of bile by the entrance of food into the intestine is a powerful factor in preventing stagnation.

The best guides to the character of food to be given will be a knowledge of the character of the stomach secretions, careful observation of the stools, and within limits the wishes of the patient and his own ideas as to what does and what does not agree with him. For we must remember that desire for a food is a powerful factor in rendering it digestible, and that the digestive apparatus has a way of often acting contrary to what we think it should or should not do.

Give plenty of water and if necessary alkaline diuretics, as the urine should not be allowed to become scanty or highly acid.

Intestinal indigestion should be avoided and bowels should be kept open preferably by means of sodium salts, with occasional doses of calomel or podophyllin.

Salicylate of soda and the glycocholate of soda can be given regularly and promote the flow of a thin bile and probably have some power to render the bile

a less favorable medium for the growth of bacteria.

All mechanical causes that interfere with the free flow of bile should if possible be removed. The regular and complete emptying of the gall bladder should be encouraged by deep breathing, by exercise of abdominal muscles and by massage or electricity in the region of the gall bladder. If an attack of severe cholecystitis with distension and possibly suppuration should occur, the patient must be given absolute rest in bed, very little if any food and water as may be necessary. Opium sufficient to relieve pain and quiet the patient should be given. If bowels are moved at all it should be by enemas and not by cathartics.

Use ice bag or hot application in region of gall bladder. As a hot application the old-fashioned bag of hops serves very well, as it is light, retains heat fairly well and may be wrung out of antiseptic solutions. General suppurative treatment should of course be given if indicated.

CHOLELITHIASIS.

The condition known as cholelithiasis is really only an inflammatory condition complicated by the formation of gallstones. The two conditions necessary to the formation of gallstones are infection and obstruction.

As yet we are unable to do much in the way of treating the infection, but we have good ground for hope that in the near future we will have something which administered internally and excreted in the bile will render that excretion an unsuitable medium for the growth of bacteria which find their way into gall ducts or bladder.

There remains for us to consider the treatment of biliary colic during the attack, the consideration of the possibility of dissolving or dislodging the stones and the after treatment.

In an attack of colic our first duty is to relieve pain and to do this give

morphine or atropine hyperdermatically. If necessary, give chloroform. I think it a waste of time and cruelty to the patient to attempt to relieve the pain by medicine given by mouth. Make hot applications or put patient in hot bath.

It has been recommended that we make applications of hot water through a tube introduced into stomach. Theoretically this looks reasonable, but practically I doubt if many patients would submit to the introduction of a stomach tube during an attack of colic.

If collapse should occur we must use the ordinary well known means of stimulation.

For nausea or vomiting the morphine and atropine are often sufficient, but if not the remedies mentioned when treating the nausea accompanying jaundice may be tried. Free bowel movements best obtained by enema often give great relief to the patient. Attempts to dislodge a supposed impacted stone by means of emetics, strong cathartics or massage of liver and gall bladder appear to me to be not only useless but dangerous.

I have no faith in the power of anything given internally to dissolve the stones in the gall bladder, and the value of such a destruction, if it is possible, has been overestimated as the stones are not the original cause of the trouble, and even if they were destroyed, but the causative factors remained, they could reform in a comparatively short time.

The after treatment of gallstone colic is the same as that described as the after treatment of the ordinary inflammatory conditions, as we have very much the same conditions to contend with.

We must, however, be very careful with our directions for exercise, and massage and electricity in region of gall bladder must be forbidden.

It may not be out of place to say a few words regarding the use of olive oil in the conditions we have been considering. That olive oil has any power to dissolve or dislodge stones I do not believe; that it is often of great benefit in diseases of the biliary tract I am convinced, and the evidence in its favor is too strong to be thrown aside.

Not believing that the oil dissolves stones and yet believing that it has a decided value it may be worth while to attempt an explanation of its mode of action:

1st. It is probable that some of the cases diagnosed as gallstones without icterus are really cases of hyperacidity and pyloric spasm, or it may be the two conditions combined and we know that in these stomach conditions olive oil is of great value.

2nd. The oil, unless given in quantities sufficient to disturb digestion, is beneficial to the intestine and promotes regular bowel movements.

3rd. Olive oil, in common with other fats, has a decided effect on both the

excretion and expulsion of bile, and so prevents stagnation, one of the chief causes of trouble.

The clinical evidence of its value, together with these facts are, I think, sufficient to justify the continued use of olive oil in suitable cases of biliary diseases.

For what exact knowledge we at present possess concerning these conditions we are in great part indebted to the brilliant work of the surgeons and pathologists, but if the future is to see much progress we must get help from another source. The physiologist and physiological chemist must come to our aid, for the surgeons and pathologists are usually dealing with results rather than causes, and it will be through the study of metabolism, normal and abnormal, and increased knowledge of the physiological and pathological action of the liver that the means may be found to place the surgical diseases of the biliary tract among the rareties of medicine.

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STRAW MATTRESS URTICARIA.*

A PRELIMINARY REPORT BY JOSEPH GOLDBERGER, PASSED ASSISTANT SURGEON, U. S. PUBLIC HEALTH AND MARINE HOSPITAL SERVICE, AND JAY F. SCHAMBERG, PROFESSOR OF DERMATOLOGY AND INFECTIOUS ERUPTIVE DISEASES IN THE PHILADELPHIA POLYCLINIC.

We wish to invite the attention of the profession to a skin affection of unusual character which has prevailed in an epidemic form in Philadelphia and vicinity since the early part of May, 1909. We have reason to believe that this disease is not confined to the locality indicated, but occurs more or less in various parts of the United States.

In 1901 Schamberg published (*Phila. Med. Journ.*, July 6, 1901) a short article on "An Epidemic of a Peculiar

and Unfamiliar Disease of the Skin," examples of which were in that year simultaneously observed for the first time by Schamberg, Duhring, Hartzell, Stelwagon, and other dermatologists in Philadelphia. Since 1901 cases of this same character have been encountered each year, usually between the months of May and October.

Etiology.—The cause of the peculiar affection which we are considering was until recently very obscure. During the months of May and June, 1909, an out-

*From Public Health Reports, July, 1909. Public Health and Marine Hospital Service.

A preliminary report to the Surgeon-General,

break (20 cases) of this eruptive disease developed among the crew upon a private yacht docked in the Delaware River. At almost the same time 33 more cases appeared among the crews of four other boats. Besides these 53 cases, we learned in the course of our investigation of about seventy other cases in twenty different private residences and boarding-houses scattered about the city of Philadelphia and its vicinity. In practically every case we were able to determine that the patient had either recently slept upon a new straw mattress or had freely handled the same. The facts elicited by our inquiry enabled us to exclude from consideration the jute or cotton topping or the ticking of the mattresses, and we satisfied ourselves that the essential causative factor was connected with the wheat straw. The mattresses were made by four of the leading manufacturers, all of whom received a large proportion, if not quite all, of their straw from the same source in New Jersey.

In order to establish the etiological role of the straw mattresses experimentally, one of us exposed his (left) bare arm and shoulder for one hour between two straw mattresses. At the end of about sixteen hours the characteristic itching eruption appeared. Later three volunteers slept upon a mattress during a night and each one developed the eruption at the end of about the same period.

We next took some of the straw and sifted such particles as would pass through the meshes of a fine flour sieve. The sifted particles were divided into two portions and placed in two clean glass Petri dishes. One of these was then applied for one hour to the left axilla of a volunteer. At the end of about sixteen or eighteen hours the characteristic eruption was present in the area of the left axilla to which the

Petri dish of straw siftings had been applied.

Having therefore determined not only by deduction from the epidemiological facts but by experiment that the straw in the straw mattresses was in some way capable of producing the eruption we next sought in the straw for the responsible factor. First we exposed for an hour the second portion of the siftings in a Petri dish to the vapour of chloroform under a bell jar with a view to killing any insect or acarine that might be present. These siftings were then applied to the right axilla of the volunteer to whose left axilla the untreated siftings were applied. While, as has been stated, the application of the untreated siftings was followed by the appearance of the characteristic eruption the skin to which the chloroformized siftings were applied remained perfectly normal. We inferred, therefore, that the essential causative factor residing in the straw had been killed by the chloroform fumes. Careful scrutiny of some of the fresh siftings from the straw disclosed the presence of a small almost microscopic mite. Five of these mites were fished out, placed in a clean watch crystal and then applied to the axilla of another volunteer. At the end of about sixteen hours following this application five of the characteristic lesions appeared on the area to which the mites had been applied.

We established, therefore, that the minute mite which we fished out of the straw siftings was the factor in the straw that was responsible for the production of the eruption. This mite was identified for us by Mr. Nathan Banks, expert in acarina of the United States Bureau of Entomology, as very close to, if not identical with, *Pediculoides ventricosus*.

We have encountered the disease only between the months of May and Octo-

ber, in Philadelphia and its vicinity. A patient with this affection was exhibited by one of us before the American Dermatological Association in June, 1909. Prominent dermatologists from Boston, Baltimore, New York, Chicago, St. Louis, San Francisco, and London stated that they were unfamiliar with the clinical picture presented.

Eruption.—The disease is characterized, as a rule, by an eruption consisting of wheals, nearly all of which are surmounted by a central vesicle, which very rapidly acquires turbid and later pustular contents. This is the peculiar and characteristic lesion of the affection. Instead of frank wheals, the primary efflorescences may be erythematourticarial spots or papulo-urticarial lesions. They vary in size from a lentil seed to a finger nail, and are rounded, oval, or irregular in shape. They are of a warm rose color, but only rarely exhibit the pinkish white anemic area seen in the lesions of ordinary "hives." The central vesicle is usually minute, not exceeding a pin head in size; in other cases it may be larger, acquiring the dimensions of a lentil seed or pea.

The eruption is more or less profuse and usually extends over the neck, chest, abdomen, and back, and in a lesser degree over the arms and thighs. Scattered lesions are often observed on the face, forearms, and legs, but the hands and feet are nearly always free. The extent of the eruption and the size of the individual lesions are apt to bear an inverse proportion to each other. In the most profuse eruptions 10,000 or more lesions may be present. In some cases the eruption described may undergo modification and later present patches conforming to the type of erythema multiforme. There are, therefore, three varieties of eruption (a) urticaria vesiculo-pustulosa, (b) erythema multiforme, (c) varicelloid type with large central vesicle or pustule.

The eruption is accompanied in well-pronounced cases by the most intolerable itching, which for obvious reasons is worse at night and may seriously interfere with sleep. The pruritis may lead to violent scratching with the production of excoriations.

Systemic Symptoms.—Some patients with profuse eruptions have an elevation of temperature varying from 99° F. to 102° F. There may also be at times malaise and anorexia, although as a rule patients do not complain of feeling ill and rarely seek their bed. There is, in some patients, a moderate enlargement of the subcutaneous lymph glands. In three instances transient albuminuria was observed.

The affection is apt to be confounded with ordinary "hives" urticaria, chickenpox, and scabies. We have known many such errors of diagnosis to have been made. In one case with a particularly profuse eruption, the patient was under suspicion of suffering from smallpox.

We have received a number of letters from laymen and physicians in Pennsylvania and Ohio alleging that farmers commonly develop a hive-like eruption after contact with oat straw and rye straw, and that these are therefore not used for bedding. There are several references in foreign literature to mites of the genus *Pediculoides* in grains attacking man and producing cutaneous lesions.

Treatment.—The mattress may be exposed to sulphur fumes, to steam, or to formaldehyde in a vacuum chamber to kill the mite. For the relief of the itching and the cure of the cutaneous condition the following has been found efficacious:

R

Betanaphthol	gr. xxx
Sulphur. praecip.	ʒi
Adipis benzoat	ʒi

Ordinarily the itching will subside within twelve to thirty-six hours, and the eruption will disappear in about a week or ten days. Where, however, the cause is not recognized and the use of the mattress is continued we have known patients to suffer severely for periods of from three to seven weeks, when gradual subsidence and recovery would take place.

We have known patients to be obliged at times to discontinue their daily work owing to loss of sleep and the distress due to itching. Other patients were compelled by their employers to cease work owing to the suspicion of contagion and the opprobrium attaching to the presence of a profuse eruption.

A more exhaustive report of this investigation will, it is hoped, be published later.

GASTRIC AND DUODENAL ULCER.*

BY EDITH J. CLAYPOLE, M.S., M.D., PASADENA, CAL.

A round or peptic ulcer is a loss of mucous membrane in the stomach or duodenum, with a tendency to progress to the depth of the mucosa and showing little attempt at healing. It occurs from the esophageal opening to the bile papella, in the area exposed to the action of the gastric juice. The lesions may be so slight as to be barely visible or so extensive as to cover an area eight inches in diameter. Peptic ulcers may be single or multiple, anything from a small superficial erosion to a large girdling ulcer, found by the fusion of several or the growth of one. The amount of hemorrhage and therefore the immediate seriousness depends entirely on the erosion of blood-vessels and shows nothing as to the size and extent of the lesion. The forms of these ulcers are two: (a) the acute, (b) the chronic.

(a) *The acute* is round or oval in shape, extends with great rapidity and gives the typical punched-out appearance. In size it varies from a split pea to a fifty-cent piece. It has no infiltration, a smooth base, no granulations, a conical shape with its base to the mucosa and apex to the submucosa. It may heal and in so doing causes no contraction, because of the limited lateral extent of the lesion.

(b) *The chronic* is irregular in shape, with a terraced or shelving rough appearance, funnel form, thickened edges and base and peritoneal coat. The latter may be adherent to the adjoining parts. In size it may be up to eight inches in diameter. It tends to heat but causes cicatricial contractions and deformity. There may be one or more forming at once or in succession.

The microscopical pathology is similar to that of any other ulcer of the digestive tract. The lesion of the mucous membrane from whatever cause is followed by its necrosis. In the fresh ulcer but few changes are seen, a little leucocyte infiltration of the submucous tissue and perhaps some fatty degeneration of the muscularis mucosal. These are followed by repair and but slight if any scar remains in the acute form. In the chronic ulcer the thickened base and walls are infiltrated with round cells and there is a good deal of new formed fibrous tissue. Over this lies the pyogenic membrane, making the whitish exposed surface. Granulation tissue is present to a greater or less degree on walls and base with the proliferation of capillaries, and the increase of connective tissue makes the thickenings marked.

*Read before the Los Angeles County Medical Association, May 21, 1909.

The mucous membrane containing the peptic glands very soon disappears and the base of the ulcer rests on the submucous, muscular or even peritoneal coat, or perhaps is formed by the surrounding parts. If any tendency to heal exists, the destroyed part is replaced by fibrous tissue. This, if extensive, subsequently contracts and causes deformity at the cicatrix.

LOCATION OF ULCERS.

Acute Ulcers (39 cases)		Chronic Ulcers (70 cases)	
Pyloric Zone.....13	33.3%	53	75%
Middle Zone.....14	36.0%	7	10%
Cardiac Zone.....12	30.0%	10	14%
Post. Surface.....10	26.0%	46	73%
Out. Surface.....5	12.8%	7	11%
Less. Curvature...23	59.0%	10	16%
Fenwick—1015 cases.		Welch—793 cases	
Lesser Curvature...36.0%	288	36.3%	
Post. Wall.....25.0%	235	29.6%	
Pylorus.....15.6%	95	12.0%	
Out. Wall.....8.0%	69	8.7%	
Cardia.....7.9%	50	6.3%	
Greater Curvature 4.1%	27	3.7%	
Fundus.....3.3%	29	3.4%	

FREQUENCY.

In 32,052 autopsies in Prague, Berlin, Dresden, Erlangen and Kiel there were 1,522 cases of open ulcer or cicatrix, that is 5 per cent of people dying from all causes had or had had gastric ulcer. In Prague there were found in 11,888 bodies 164 open ulcers or 1.4 per cent, and 374 healed ulcers or 3.1 per cent. If all scars were recognized the figures would probably be about 1—3, showing that 75 per cent heal. The percentage of cases found by diagnosis during life is far lower.

Lambert diagnosed gastric ulcer in 252 cases out of a total of 41,688, or only 0.6 per cent. This goes to show the obscurity of the disease and the tendency to recovery.

CAUSES.

The causes of peptic ulcer are probably various, since it occurs at all ages and in all walks of life, though certain ages and certain anomalies in nutrition are predisposing factors. Trauma from hard substances, foreign bodies swallowed, caustic fluids and pressure may cause some cases. Hot food, hot drinks,

cutaneous burns and constitutional conditions as in tuberculosis, syphilis, thrombi, etc. are responsible for others. A great amount of discussion and a large mass of experimental and clinical evidence has accumulated about the possibility of *auto-digestion* in the stomach and the manner in which ulcers can arise from accidental lesions of the mucosa. Digestion of the gastric mucosa is known to occur as soon as death takes place, normally never before. What prevents it? Mere injury is not sufficient for much animal experimentation and also surgical and clinical evidence goes to show that the mucosa normally tends to heal rapidly. The surgeon knows this to be true of all the digestive mucosa. A simple erosion will not of itself become a duodenal ulcer. *Hyperchlorhydrici* alone will not cause it, since this condition is known to exist for long in the absence of ulcer, also ulcer is known to exist without hyperchlorhydria. The being *living matter* will not prevent auto-digestion, since the living frog's leg and rabbit's ear are both found to be digested in a dog's stomach. This does not, however, seem to me a good argument, since the reaction of living things to their environment is a gradual process. The gastric mucosa is developed, as it were, in a bath of gastric juice and hence is far more likely to be resistant to its action than such a part as the external skin in either the frog or rabbit. All living matter *per se* may not be proof against gastric juice, but the gastric mucosa may be and this the experiment does not disprove.

A more recent explanation and one supported by Mayo Robson is that of infection. This is known to be a common cause for ulceration in the intestine in typhoid, dysenteries and tuberculosis. An invasion of the mucosa is followed by local necrosis and ulcer formation. Robson believes that oral sepsis is really responsible as shown by

the occurrence of gastric ulcer frequently among the poorer classes, who neglect the teeth and mouth. A continued mild sepsis leads to gastritis and hyperchlorhydria, which provokes and keeps up ulceration. It also seems to me quite possible that the infection could be purely local, a few follicles only falling prey to the bacteria, becoming necrotic and so forming the ulcer. If more than one point were infected at once more than one ulcer could form, or they might appear severally just as in boils or any cutaneous infection. It may also occur that the mucosa is infected at many points, but short of breaking down so leading to the disturbed function as suggested by Mayo.

ANALYSIS OF STOMACH CONTENTS.

The normal stomach after one hour yields with the Boca breakfast a total acidity of 40 per cent to 60 per cent, and 20 per cent to 30 per cent free HCl. These figures do not represent any accurate clinical condition for the free HCl may reach 50 per cent without symptoms, or 24 per cent may give severe symptoms. *Microscopical examination* yields some results. The finding of free nuclei of epithelial cells and leucocytes show HCl to be present, while entire epithelial cells and leucocytes argues against its pressure. Large clumps of leucocytes and blood indicates an ulcerated surface. Sarcenae and HCl show stagnation of the contents while Oppler-Boas bacilli in abundance, lactic acid and stagnation is all evidence in favor of carcinoma.

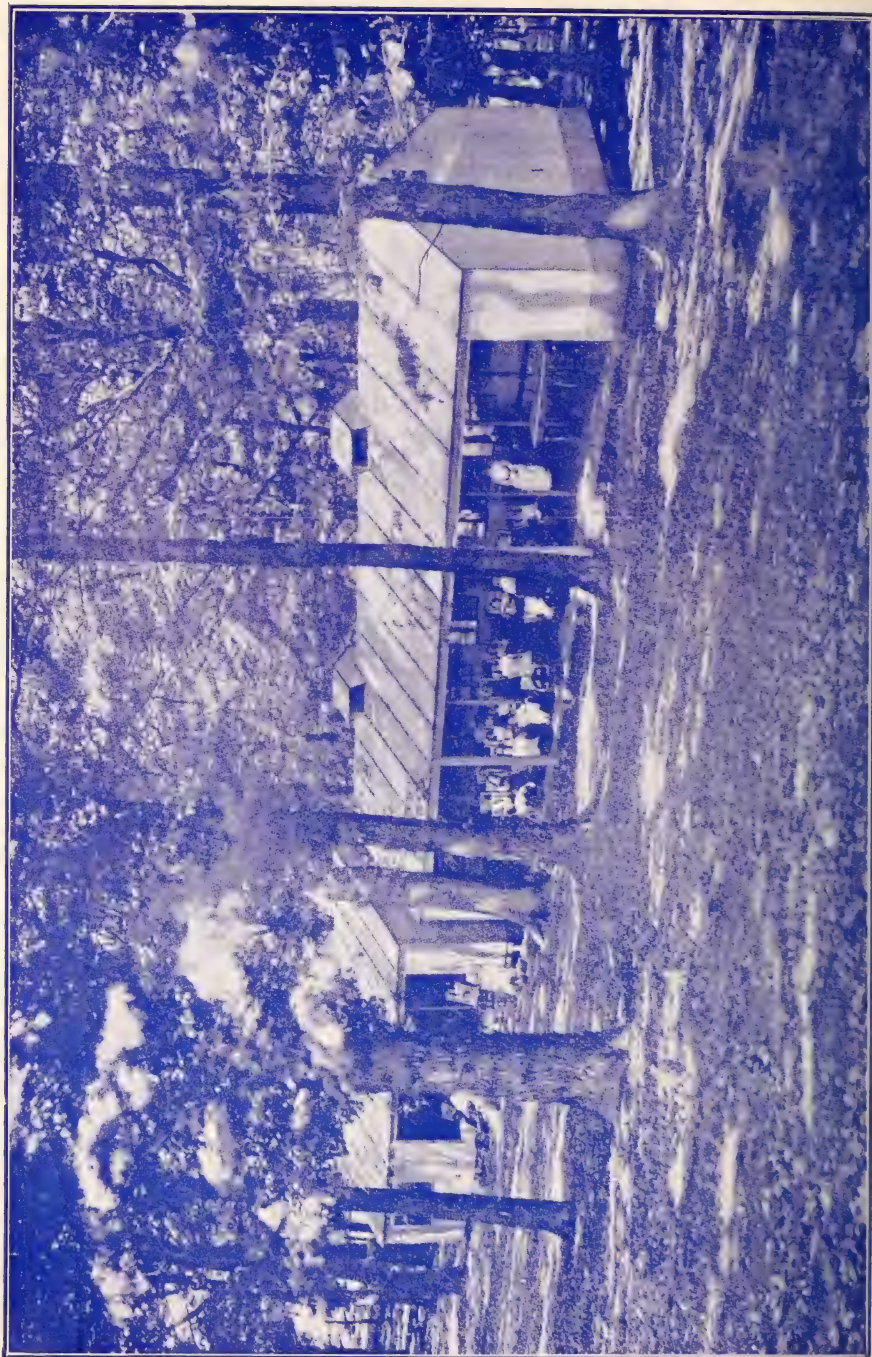
The pathology of duodenal ulcer is identical with that of gastric ulcer, aside from its location and frequency of occurrence. Usually it is placed near the pylorus on the anterior wall. Kennicutt estimates its occurrence as 1-10 per cent in 30,000 autopsies, but many cases escape notice. Cases of coincident gastric and duodenal ulcer occur,

DOCTORS' SPAN OF LIFE—MEDICAL MEN LIVE LONGER THAN FORMERLY.

Some interesting statistics have been gotten together by a foreign contemporary on the duration of a medical man's life during the last centuries. It appears that in the sixteenth the practitioner lasted but 35 years and 5 months. In the seventeenth century this was increased to 45 years, 8 months. The eighteenth lengthened this four years, and in the nineteenth century we find that the medical man reached 56 years and 7 months.

"It would appear from this data," says our contemporary in comment, "that—whether the survival be of the fittest or not—the duration of a medical life has been increasing in a marvelous manner. Should the same rate be maintained, practitioners of medicine may before long look forward to outlasting 70 and 80. According to Dr. Salzman, the addition of over twenty years to the average medical lifetime is due to the advance of medical science, preventive and curative."

The following combination has been recommended for catarrh and coryza: A simple and serviceable one which can be made up at home by the patient when needed is as follows: One-half teaspoonful of salt, one teaspoonful of soda, ten drops of carbolic acid in a pint of water. A bit of carmine or other coloring matter will make the mixture look less simple and more medicinal and enable to see better when passed through the nose and out of the mouth. This should be used lukewarm. Pour into the palm of the hand and snuff through the nose in the stooping posture, spitting it out of the mouth. This will dissolve tenacious mucus, disinfect and heal the parts and enable the patient to breathe better.



Pavilions at the London County Council's Open-Air School at Shooter's Hill---See Page 406.

SOCIOLOGICAL

* THE DELINQUENT CHILD IN ENGLAND

BY WALTER LINDLEY, M. D., LL. D., MEDICAL DIRECTOR OF CALIFORNIA HOSPITAL OF LOS ANGELES; PRESIDENT BOARD OF TRUSTEES OF THE WHITTIER STATE SCHOOL.

England has been making great advances in the last decade, both in the prevention of delinquency and in the care and redemption of the delinquent child. This spirit of the English people has been crystallized and materialized in the Children's Act of 1908, which came in force in April of this year. One of the most fertile causes of depraved childhood and criminal adult life is the almost universal habit of drink among both men and women of the laboring classes. The law just referred to includes a provision which makes it a crime for children under fourteen to be taken or admitted to a public bar. Heretofore the mother would take her little child to the bar and give it a teaspoonful or two from the gin she was drinking herself. This law has been passed never to be revoked, although the newspapers of London are almost daily publishing plaintive protests against it. Another section of this Children's Act provides a severe penalty for giving a child under the age of five any intoxicating liquor except upon the order of a duly qualified medical practitioner. It also provides that if a person sells to a person apparently under the age of sixteen years any cigarettes, or cigarette papers, whether for his own use or not, he shall be liable to a fine of two pounds. It is now nothing unusual to see a woman with her baby in her arms standing on the sidewalk by the door of the bar and being handed out her glass of gin by the bartender. Almost all the bartenders in England are women, and, in that direction at least, women are on an equality with men. At noon or

night factory women, young and old, and women from all kinds of employment, and women from their homes can be seen rushing into these barrooms and standing there taking their drinks, or sitting at the convenient table, and drinking just the same as men.

The next step which will do much towards preventing juvenile delinquency will be the prohibiting of any woman to attend bar, or to drink in a public bar. Such a law has already been broached and will do much towards sending the mother, who is out at work, home early to her children, and towards keeping her maternal instincts from being nullified by drink.

Another great step towards the prevention of juvenile delinquency has been the rapid development of the public school system of England. In London alone there are about 600,000 children in the public schools. Compulsory attendance is required from five to fourteen, but children over three may be admitted where the mother cannot stay at home. Besides the children in the public schools, there are 150,000 in the private and church schools of London. Connected with the schools are voluntary Children's Care Committees who are composed of teachers, mothers and fathers, who look after the general welfare of poor children and bring before the educational authorities the case of all children needing free meals and other assistance. At times there have been as high as 55,000 children in these elementary schools receiving free meals. The months when this reaches the highest number are February and March. Special care is taken

* Address delivered before the Thirty-Sixth National Conference of Charities and Correction, Buffalo, New York, June 14, 1909.

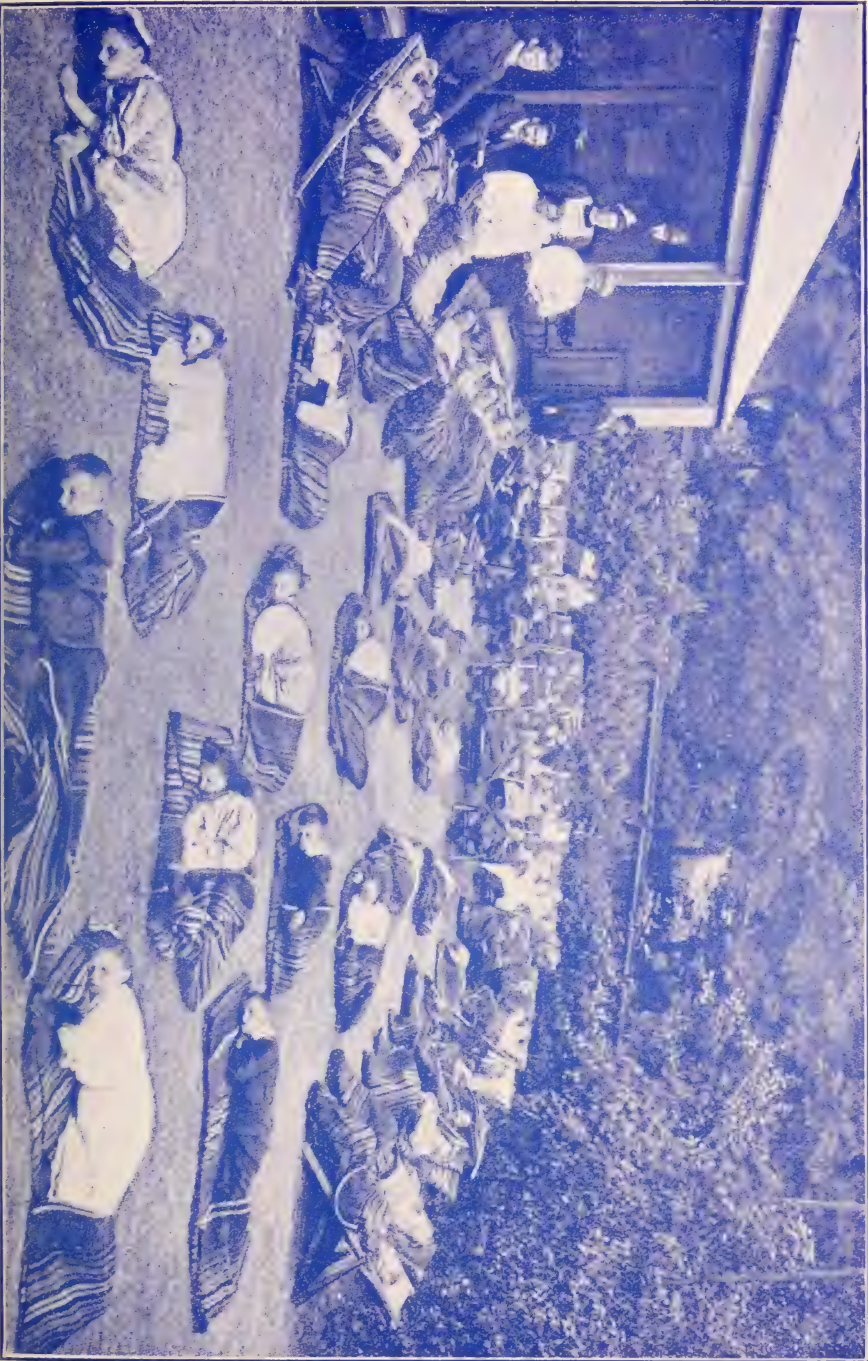
to give the girls practical instruction in cooking and other branches of domestic science.

Another very important voluntary organization is the Apprenticeship Association. These Associations are quite numerous and their business is to assist the children to find skilled employment when they leave school. These Associations have the co-operation and assistance of the government and do much towards preventing delinquency.

Still another important voluntary organization are the After Care Committees, who assist parents in finding careers for defective children. Ill health and impoverished childhood are great causes of delinquency, as the child in that condition is naturally backward in his studies and drifts from that to truancy, and from truancy to crime. This is proven by the report of the Anthropometric Committee of the British Association which shows that industrial school boys at the age of fourteen are nearly seven inches shorter of stature and twenty-four and three-quarter pounds lighter in weight than juveniles of the same age in the public schools. With this fact in view the educational authorities of London have established outdoor schools in different districts of that metropolis. The official title is Open Air Schools. Each school contains about 80 pupils between the ages of eight and fourteen years (boys and girls) selected by the medical officer from those children in adjacent schools who appeared to be likely to derive benefit from the open air treatment. These children are not backward in their school work because of defective intelligence, but rather because of inherited weakness, impaired vitality, improper feeding and unfavorable surroundings. The anemic condition is due to bad food as often as to lack of food. They come to the school for their breakfast, have a good warm luncheon and then have an afternoon meal before they start home. The city

authorities pay railway fares and furnish the meals free if parents are absolutely indigent. If the parents are able they pay 2s. and 6d. per week. When the weather is fair the children are taught entirely in the open and only come into the class room when it is too cold or too windy. Besides the usual studies they are taught gardening and are brought in touch as closely as possible with Mother Nature. One important point in these schools is that as soon as they have luncheon they lie down for two hours, getting absolute rest. The children attend these schools six days in the week, going to their homes every evening.

Another valuable preventative of delinquency that is carried out most thoroughly in London is the evening school. In the ordinary evening schools the principal subjects of instruction are Shorthand, Gymnastics, Reading, Writing and Arithmetic, Dressmaking, Bookkeeping, Manual Training, Vocal Music, First Aid, Home Nursing, French, Cookery and Millinery. In regard to the Science, Art and Commercial Centres the instruction is chiefly of a commercial character, as the majority of the students are engaged in commercial pursuits. Common subjects are Shorthand, Bookkeeping, French, Typewriting, German and English Language. There are, however, more advanced classes in such subjects as Accountancy, Banking, and Currency, Commercial and Municipal Law, Machinery of Business, Spanish, Italian, Russian and Esperanto. The instruction in the Science and Art subjects includes Chemistry, Machine Drawing, Mathematics and Physiology. The instruction in Art subjects relates chiefly to Light and Shade, Model, Free-hand, Blackboard and Perspective. The ordinary schools are open generally on three evenings a week, between the hours of 7:30 and 9:30, and the centers on four evenings a week for about two and a half hours each evening.



Rest Hour at the London County Council's Open-Air School



The fees charged to the students are 1s. the session in the ordinary schools, 2s. 6d. the session in the commercial centers, and 5s. the session in the Science and Art centers. There are, however, about 70 evening schools in poor districts where no fees are charged and students under sixteen are admitted to the other schools if unable to pay the fee. There are 128,000 students in London enrolled in these evening schools.

Inspectors, who are called School Attendants are devoting their time constantly to visiting children whose names are given them as absent from public schools. In the event of illness no steps are taken, but if the children are truant the parents are warned and if the truancy continues the parents are summoned before a magistrate, who makes an order for the children to attend the school convenient. Should truancy continue after this the parents are again summoned before the magistrate, and if it is proved that the parents are to blame they are fined, and if the children are determined truants an order is made for their admission to a truant school, where they are kept, fed, and clothed for some months, a small order for payment being made upon the parents. After a short stay in these schools the children are allowed to go home, but if their truancy or delinquency continues and it is proven that they are beyond the control of their parents, they are sent to industrial schools, where they may be detained to the age of sixteen. The numbers in the truant schools of England on December 31, 1907, were 1125, with 2568 out on parole, or, as the English term it, "license."

Besides all of this work that is being done for developing the health, self respect and morality of the children of England that has been mentioned, there are many, many powerful philanthropic movements, the mention of which must be omitted. One is the Boys' Brigade movement, a non-sectarian organization in which 25,000 of the

younger boys of London are enlisted.

Now, coming to the care of the child who is actually delinquent, there are three classes of schools:

- (1)—The Day Industrial School.
- (2)—The Industrial School.
- (3)—The Reformatory.

Both the day industrial and the industrial (residential) are for delinquent children under fourteen, while to the reformatory school the delinquent child between fourteen and sixteen is committed.

Where the delinquent child under fourteen has a home that is fairly decent the magistrate may commit him to the day industrial school. They go to these schools at the time their parents go to work, that is from 6 to 7 a. m. Some arrive at the school as early as six. He first takes a swimming bath, the water of which has been made luke-warm. He then has his breakfast. He gets the ordinary school branches, and the boy is also taught some trade, while the girl is taught sewing and cooking. In each of these schools they have a band and a special feature is made of teaching them to sing. They have their three meals at the school and usually go home about 6 p. m. The consensus of the statement of the superintendents of these day industrial schools is that after the child has been with them for three months he very rarely plays truant, for which there are four reasons:

- (1)—The good nourishing meals;
- (2)—The good opportunity of a trade;
- (3)—The instrumental and vocal music,
- (4)—The aversion of being sent to a residential industrial school.

As one of the superintendents said, it is far better for the child to keep up his connection with his home. He is much better prepared to face the world if he is not taken out of the world. If the child does have to look after his little brothers and sisters and run errands mornings and evenings, that is part of his education. The boys in these schools

wear no uniforms, but a philanthropic society provides good clothing for them when the parents are not able to supply them. Shoemaking and harnessmaking were formerly trades that were taught boys, but now these have been almost made useless as the shoemaking industry has decayed so rapidly. In England only 1-15 of 1 per cent of the boots and shoes are hand-made, and this small fraction are principally for deformed feet. The use of automobiles has reduced the amount of harness manufactured over 50 per cent, and there is very little opening for the boy who has been taught that trade. They are experimenting now for trades to take the place of these.

Hon. T. R. Robertson, chief inspector of reformatory and industrial schools of Great Britain, speaks most highly of the value of these day industrial schools. There are now 20 of these day schools under his inspection—15 in England and 5 in Scotland. The number of children in attendance at these day schools on December 31, 1907, were: Boys, 1951; girls, 1232.

The residential industrial school is very similar to the State Industrial Schools of the United States, except that no children are admitted over fourteen. The following children may be committed to these industrial schools:

- (1) Those found begging.
- (2) Found wandering and not having any home or settled place of abode.
- (3) Found destitute, not being an orphan and having both parents undergoing penal servitude or imprisonment.
- (4) Found under the care of parents, or guardians, who by reason of criminal or drunken habits, are unfit to have the care of the child.
- (5) The daughter of the father who has been convicted of an unnamed crime.

- (6) Who frequents the company of a reputed thief, or any prostitute.
- (7) Who is lodging or residing in a house used by any prostitute.
- (8) Where a child apparently under the age of 12 is charged before a court with an offense punishable in the case of an adult by penal servitude, or less punishment.
- (9) Where a child apparently of the age of 12 or 13 years, who has not previously been convicted, is charged before a petty sessional court with an offense punishable in the case of an adult by penal servitude, or a less punishment, and the court is satisfied that the child should be sent to a certified school, but, having regard for the special circumstances of the case, should not be sent to a certified reformatory school, and is also satisfied that the character and antecedents of the child are such that it will not exercise an evil influence over the other children in an industrial school, the court may order the child to be sent to the industrial school, having previously ascertained that the managers are willing to receive said child. On application of the managers of the industrial school said child must at any time be transferred to a reformatory school.
- (10) Where the parent or guardian of a child proved to a court that he is unable to control the child and that it desires the child to be sent to an industrial school, the court, if satisfied, may order him sent to an industrial school.

In the case of a child committed to an industrial school, the length of such commitment may be such as the court may deem proper for the teaching and training of the child, but not in any case

extending beyond the time when the child will, in the opinion of the court, attain the age of sixteen years.

There are provisions for paroling the children from these schools. Every child sent to an industrial school shall, from the expiration of the period of his detention, remain to the age of eighteen under the supervision of the managers of the school.

A great majority of these industrial schools are philanthropic organizations to which the government and the city, or county, from which the child is sent, pay so much per week per child.

One thing to be noted especially is the didactic part of the instruction in these schools in all work done. As a fair explanation I place as an appendix the syllabus of instruction for 1908-09 for those who are learning to be *bakers*, *blacksmiths*, *tailors*, and *carpenters*, as it is of great value to all who are teaching delinquent children.

See Appendix I—A, Syllabus of Instruction—*Bakers*.

See Appendix II—A, B, C, Syllabus of Instruction—*Blacksmiths*.

See Appendix, III—A, B, Syllabus of Instruction—*Tailors*.

See Appendix IV—A, B, C, D, E, F, Syllabus of Instruction—*Carpenters*.

Thirty-nine in every one hundred of the children in the English industrial schools are either totally or partially orphaned, which would indicate that they are descended from a somewhat degenerate stock. The natural consequence is that the physical basis of the mental life is in a worse condition, as a whole, among the English children in industrial schools than among the ordinary population at the same stage of existence. Further, the incapacity to control the child would indicate a weak mentality, and as this incapacity is exhibited among 44 per cent of the parents of juveniles in industrial schools

and reformatories, the weakness of will is reproduced among these juveniles in the shape of incapacity to control themselves.

As an English authority says, mental inheritance is as real as bodily inheritance, and a high percentage of these children are below an average normal standard in general mental power.

Fifty-one percent of the inmates of the English industrial schools is composed of children who are either illegitimate, or who have one or both parents dead, or who are the offspring of criminals or parents who have deserted them. In the reformatories, the ratio is fifty-three per cent.

In investigating the effects of illegitimacy on juvenile delinquency, Dr. W. Douglas Morrison, the gifted rector of Marylebone, London, discovered that illegitimacy tends toward the minimum in those parts of England where the population is most dense, and toward the maximum where the population is most sparse. In other words, in rural districts where there is an absence of prostitution there is a high rate of illegitimacy. The Doctor did not find that illegitimacy had a marked relation to juvenile crime.

As a great encouragement to those working in industrial and reformatory schools where the stature, say at the age of fourteen, is under the average and where the general condition is impoverished, it can be stated that full growth in stature is attained in the professional classes about the twenty-first year, while in the poorer classes of England it is not reached before the twenty-fifth or twenty-sixth year.

Juvenile reformatory schools of Great Britain are similar to the industrial schools in their equipment and work. The difference in the two classes of schools is that no child over fourteen can be committed to the industrial schools, while delinquent children between fourteen and sixteen must be

committed to the reformatories, and the magistrate has the privilege of committing children convicted of the most serious crimes, who are between twelve and fourteen, to either industrial schools or reformatories. In the industrial schools vagrants, or those who have a tendency to vagrancy, predominate, while in the reformatory the thieves predominate. At the end of 1907 there were 44 of these reformatory schools; 37 of these were in England and 7 in Scotland. At that time there were in these reformatories 4,057 boys and 569 girls.

These reformatories are none of them government or municipal. They have all been established and are controlled by philanthropic voluntary organizations. The national government and the municipalities pay so much per week per capita for children committed to these schools. This amounts to about 8s., or \$2.00 per week. The balance for the support of these institutions is raised by voluntary contribution. In turn, the government collects from the parents of these children, who are able, a small amount. For the year 1907 the government collected from parents of juvenile offenders in reformatory schools \$40,000.

Aside from the work and sport, the latter being carefully and persistently encouraged, the managers of reformatories and industrial schools lay great stress on systematic physical exercise and gymnastics. These are all done with a snap and celerity and rapidity that completely negative the idea that the English people are slow. In most of the schools they have gymnastics of an evening, and in one of the juvenile reformatories the boys were put through these physical exercises every evening from eight to ten o'clock. The superintendent was very enthusiastic. He said there was no trouble about the boys sleeping well after that. He thinks it is inviting trouble to put city boys to bed at eight o'clock. By

taking these exercises they immediately on touching their beds, go to sleep and do no harm to themselves or any person else. There has not been a death in this school for over three years.

Another feature of this school is that the boys who are learning tailoring sit on stools beside the table and do not double their legs up in the Turkish manner usually adopted. The teacher of tailoring said they were a great deal better off physically and they did more work than when bent over with their legs crossed.

In these reformatories they have real rifles and the boys are drilled in the Manual of Arms and prizes are given for the best marksmanship. When a boy leaves an industrial school or reformatory to work at a trade, the government presents him a full equipment of tools for the trade he has learned.

While teaching the various trades, yet the great aim of these institutions in dealing with the boys from London and other cities is to fit them for the army, and a very large percentage go into the army. In one of the schools the superintendent looked up his records and found that for the last few years over 60 per cent have become soldiers. Quite a percentage of these become members of the army bands. A smaller number go into the navy. It is the opinion of the English school officials that the training in the industrial schools and reformatories especially equips a boy for obedience, promptness and efficiency as a soldier.

The English reformatories are all built and furnished in a very plain, unpretentious manner, but they seem to look thoroughly after the health of the children, as the remarkably low death rate would indicate. Besides the medical attendance, the teeth of the children are frequently inspected and treated by expert dentists.

There is without doubt an admirable sympathy between the instructors and

officers of these institutions and the boys and girls themselves.

The government and municipality inspectors make frequent visits and annually publish reports in which they either commend or adversely criticize, as the conditions justify. Before a magistrate can commit a boy or a girl to a reformatory or industrial school, it must be certified by the government inspector as being a well conducted institution. In the event the inspector finding afterwards that the school is not doing its work satisfactorily, he withdraws the certificate. An institution that has been thus disgraced and is no longer certified must necessarily close.

During the last few years England has adopted what they call the Borstal plan of caring for young adult criminals; that is, those who are convicted between sixteen and twenty-five. They frankly acknowledge that they are indebted to the United States for all their ideas in this new departure, which rounds up their system for the care of juvenile and young adult criminals. This plan was enthusiastically put in force on the recommendation of Sir Evelyn Ruggles-Brise of the Home Office, after he had visited the institutions at Concord, Massachusetts, and Elmira, New York.

RESULTS

The number of juveniles sent out from industrial schools during the three years, 1888 and 1890, inclusive, amounted to 11,396. Out of this number 86 per cent of the boys did well and 83 per cent of the girls. An official report just issued shows that from the largest industrial schools of England, of the boys who were discharged during 1904, 1905 and 1906 89 per cent are known to be in permanent employment, 6 per cent have been convicted of crime and 5 per cent are unknown.

The reports from the reformatories are not quite so favorable, but come

within a very small percentage of the above figures.

The noteworthy feature of the care of the dependent and delinquent children of England is that it is in the hands of the people themselves. They do not pay their taxes, or as they call it, their rates, and leave all to the government. They take a deep, personal interest in the welfare of the unfortunate. Pauperism in England is decreasing; mortality from consumption is decreasing and crime itself is decreasing. The strong, independent, self assertion of England is being turned towards the redemption and uplifting of her own.

APPENDIX I—A

Syllabus of Instruction (Bakers)

Theoretical

1. The Grain of Wheat.
2. The Structure of a Grain of Wheat.
3. Principal Wheat Growing Countries.
4. Milling.
5. Classification of Flours.
6. Constitutents of Flour.
7. Ash.
8. Fat.
9. Gluten and Starch.
10. Soluble Constitutents.
11. The Carbo-Hydrates.
12. Cellulose.
13. Starch.
14. Description of Starch Granules.
15. Dextrine or British Gum.
16. Maltose or Malt Sugar.
17. Cane Sugar and Milk Sugar.
18. Glucose or Grape Sugar.
19. Hydrolysing Agents.
20. Estimating color of Flour.
21. Water absorbing power of flour.
22. Yeast.
23. Substances necessary for Nourishment of Yeast.
24. Substances unfavorable to Yeast Action.
25. Effect of Temperature on Yeast
26. Action of Oxygen on Yeast.

27. Names of Fermentations.

Practical.

1. Yeast Brewing.
2. Doughing Operations.
3. Scaling, Moulding and Proving.
4. Baking the Bread.
5. Cooling and Storage of Bread.
6. Souring the Bread.
7. Flour Blend.
8. Yeast Testing.
9. Shapes of Loaves.
10. Holes in Bread.

*APPENDIX II—A**Syllabus of Instruction (Blacksmiths)*

And the following is the syllabus of lectures for the same time for those working in the blacksmith shop:

*First Year**Lessons First Quarter.*

1. Elementary.
2. Importance of Iron Ore.
3. Methods of Working Iron.
4. Materials—Manufacture.
5. Tools, Bellows, Variety.
6. Manufacture of Wrought Iron.
7. Iron, How Brought, Etc.
8. Tools, Hammers.
9. Methods in Making Staples.
10. Bars and Bundles, Sizes, Etc.
11. Recapitulation on Materials.
12. Recapitulation on Methods.
13. Recapitulation on Tools.

Lessons Second Quarter

1. Cost of Iron Bars, Etc.
2. Anvils, Etc.
3. How to Make Pipe Hooks, Etc.
4. Qualities of Iron.
5. Punches.
6. How to Make a Hook.
7. Bands of Iron.
8. Setts.
9. Methods in Use of Setts.
10. Hoop Iron Coach.
11. Recapitulation on Materials.
12. Recapitulation on Methods.
13. Recapitulation on Tools.

Lesson Third Quarter

1. Wire—How Manufactured.
2. Vices—Care of Same.
3. Making Shutlink.

4. Faulty Iron.

5. Drilling Machines.
6. Drills, Explanatory.
7. Iron Plates.
8. Tongs.
9. How to Make Link, Etc.
10. Iron Sheets.
11. Recapitulation on Materials.
12. Recapitulation on Methods.
13. Recapitulation on Tools.

Lessons Fourth Quarter.

1. Sheets, Gauges.
2. Files.
3. Filing a Nut.
4. Sheets and Plates.
5. The Lathe—Simple.
6. Simple Turning.
7. Mild Steel.
8. Lathe Tools.
9. Welding.
10. Mild Steel.
11. Recapitulation on Materials.
12. Recapitulation on Methods.
13. Recapitulation on Tools.

*APPENDIX II—B**Syllabus of Instruction (Blacksmiths)**Second Year.**Lessons First Quarter.*

1. Steels.
2. Management of Fire.
3. Making a Hot Sett.
4. Shear Steel.
5. Stocks and Dies.
6. Making a Cold Sett.
7. Cast Steel.
8. Dies and Taps.
9. Making a Drill.
10. Spring Steels.
11. Recapitulation on Materials.
12. Recapitulation on Methods.
13. Recapitulation on Tools.

Lessons Second Quarter.

1. Steels.
2. Lathe—Slide Rest.
3. Turning a Taper.
4. Air Hardening Steel.
5. Lathe Boring.
6. Forging a bolt.
7. Cast Iron Properties.
8. Lathe—Use of Back Gear.
9. Forging a Nut.

10. Cast Iron Drilling, Etc.
11. Recapitulation on Materials.
12. Recapitulation on Methods.
13. Recapitulation on Tools.

Lessons Third Quarter

1. Copper, Ductility.
2. Bench—Tools.
3. Chasing a Thread.
4. Copper Brazing.
5. Lathe—Simple Trains.
6. Forging Angles.
7. Brass Alloys.
8. Use of Blow Pipe.
9. Flat Right Angles.
10. Brass—Simple Casting.
11. Recapitulation on Materials.
12. Recapitulation on Methods.
13. Recapitulation on Tools.

Lessons Fourth Quarter.

1. Tin.
2. Lathe—Simple Turning.
3. Brazing a Key.
4. Solder—How Made.
5. Lathe—Simple Trains.
6. Forging Eye Bolts.
7. Tin Plates.
8. Tinman's Tools.
9. Forging Tees.
10. Tin Plates Cast.
11. Recapitulation on Materials.
12. Recapitulation on Methods.
13. Recapitulation on Tools.

Supplementary to Above—Lessons are given on any special work in hand in shop, on horse shoes, hoofs, machines, etc. Zinc or tin plate work incidental to work in a general smith's shop.

APPENDIX II—C

Syllabus of Instruction—(Blacksmiths)

Third Year.

Lessons First Quarter

1. Lead Manufacture.
2. Lead Working—Tools.
3. Methods in Lead Work.
4. Iron Rivets, Names, etc.
5. Rivet Snaps and Draws.
6. Hand Riveting.
7. Making a Hard Solder.

8. Ratchets and Braces.
9. Methods in Use of Ratchet.
10. Iron Screws, Sizes, etc.
11. Recapitulation on Materials.
12. Recapitulation on Methods.
13. Recapitulation on Tools.

Lessons Second Quarter.

1. Rivets—Sizes and Gauges.
2. The Lathe Compound.
3. Angles of Slide Rest—Tools.
4. Bolts, Names, Variety of Threads.
5. The Lathe Compound.
6. Turning a Thread.
7. Screws, Studs, etc.
8. Squares, Bevels, etc.
9. Turning Square on Thread.
10. Nails Used by Smith.
11. Recapitulation on Materials.
12. Recapitulation on Methods.
13. Recapitulation on Tools.

Lessons Third Quarter

1. Ash Handles, Prong Forks, etc.
2. Forging a Pair of Tongs.
3. Handling Tools.
4. Fluxes, Resin, etc.
5. Making a Hammer.
6. Hardening, etc.
7. Case Hardening.
8. Bench Tools.
9. Making a Hammer.
10. Gas Threads.
11. Recapitulation on Materials.
12. Recapitulation on Methods.
13. Recapitulation on Tools.

Lessons Fourth Quarter

1. Gas Barrel Tubes.
2. Gas Tongs.
3. Methods in Fitting.
4. Steam and Hydraulic Fittings.
5. Red Lead Joints.
6. Brass Fittings in Gas Work.
7. Rain Water Castings.
8. Testing Pumps, etc.
9. Laying a Gas Main.
10. Repairs—Water Taps, Ball Taps, etc.
11. Recapitulation on Materials.
12. Recapitulation on Methods.

13. Recapitulation on Tools.

Supplementary—Lessons on Reading Gas Meters. Making and Caulking Water Pipe Joints. Use of Safety Valves. Uses of Oil in Work. Lessons on Gas Mantles and Burners, etc., etc.

This didactic work is gone over time and again until the child is thoroughly familiar with it.

APPENDIX III—A

Syllabus of Instruction (Tailors)

The following is a technical syllabus of the didactic instruction in tailoring:

Lessons First Course

1. Introductory account of tools and woolens.
2. Sewing and Pressing, Cottons and Woolens.
3. Mixtures and Unions in Various Cloths.
4. Machine Sewing. Machine Parts and Their Use.
5. Sewing—Silk, Cotton Thread. Silk and Cotton in Piece.
6. Linen, Jute, Braids, Buttons and General Tailors' Trim-mings.
7. The Principles of Sewing, Various Stitches and Their Use.
8. The principles of Pressing, Shrinking and Dampening.
9. Parts and Points of Various Trousers, Various Terms in Use.
10. Parts and Points of Coats and Vests and General Account of Garments.
11. The Principles of Repairing.
12. Recapitulation and Extension of Previous Lessons.

Lessons Second Course

1. General and Extended Account of Materials, Tools and Terms
2. Sewing and Pressing—Applied.
3. Measures, and Measuring for Trousers and Breeches.
4. Application of Measures to Garments or Pattern.

5. Trouser-making, Principles Applied.
6. Trouser-making, Pressing and Manipulation.
7. Vest-making and Measuring; Simple S. B., no Roll.
8. Coat-making and Measuring, Lounges; Principles of Over-coats.
9. Lounges, Fit and Style, and General Utility; How Produced.
10. Recapitulation.

Lessons Third Course.

1. Account of Garments Worn by Various Grades of Society.
2. Scales, Sizes and Proportion.
3. The Uses of Various Materials, Make, Quality and Quantities.
4. Cost of Materials and Production of Various Garments.
5. Various Methods of Production
6. Cost of Materials, Profits, Discounts.
7. Measures and Points to be Noticed in Cutting.
8. Measures, Scales, Graduation and Block Pattern Cutting.
9. Trousers, Drafting to Measure, Proportionate Sizes.
10. Vest, Drafting to Measure, Proportionate Sizes.
11. Coat, Drafting to Measure, Proportionate Sizes.
12. Recapitulation.

Lessons Fourth Course

1. Cutting—Various Methods in Use.
2. Cutting Coats and Vests by Patterns and Measurements.
3. Cutting and Producing by Shoulder, Direct or Breast Measurements.
4. Cutting Trousers by Side, Center or Front Construction Line.
5. Inlays, Inturns and Allowances in Making Up.
6. Drafting to Scale. (Drawing Books.)
7. Drafting to Scale on Paper or

- Cloth Full Size.
8. Drafting to Scale S. B., no Collar Vest.
9. Drafting on Cloth or Paper, Full Size, Vest.
10. Disproportion and Its Difficulties (How to Arrange For.)
11. Recapitulation.

APPENDIX IV—A

Syllabus of Instruction (Carpenters)

Course A—Lecture First Quarter

1. Elementary Lessons on Kinds of Wood Grains.
2. Tools—How to Use Saw, Plane and Chisels.
3. Simple Methods of Work.
4. Nature and Properties of Timber.
5. Tools—How to Use Rule for Measurements.
6. Preparing Timber for Bench Work.
7. Recapitulation—Materials.
8. Recapitulation—Methods.
9. Recapitulation—Tools.
10. Nature and Properties of Timber, Continued.
11. Tools; Use of Winding Strips and Squares.
12. Methods of Gauging and Shooting Stuff to Width and Thickness.
13. Setting Out Work—No. 1.

Course A—Lecture Second Quarter

1. Timber-seasoning, Decay and Preservation.
2. Tools—How to Set and Sharpen.
3. Methods. Scale Drawing.
4. Timber, No. 1, Continued.
5. Tools, Mortice Gauge.
6. Methods, Sawing to Gauge Lines and Shoulder Lines.
7. Recapitulation—Materials.
8. Recapitulation—Methods.
9. Recapitulation—Tools.
10. Timber, Structure, Classification.
11. Tools. Saw Tenon, Dovetail.

12. Methods. Glue-Jointing.
13. Setting Out Work. No. 2.

Course A—Lecture Third Quarter

1. Timber, Measurements and Sorts.
2. Tools—Use of Brace and Center Bit.
3. Methods. Testing and Trueing Up Work.
4. Timber. Structure and Classification.
5. Tools—Use of Screwdrivers and Awls.
6. Methods of Cramping Work.
7. Recapitulation—Materials.
8. Recapitulation—Tools.
9. Recapitulation—Methods.
10. Timber. No. 4 Continued.
11. Tools. Hammers and Mallets.
12. Methods. Mortice and Tenon by Hand.
13. Setting Out Work. No. 3.

Course A—Lecture Fourth Quarter

1. Materials—Nails, Cut and Wrought.
2. Tools—Mortice, Machine Chisels.
3. Timber. Structure and Classification.
4. Timber. Structure and Classification.
5. Tools. How to Set and Use Plough.
6. Methods. Use of Plough and Fillister.
7. Recapitulation—Materials.
8. Recapitulation—Tools.
9. Recapitulation—Methods.
10. Materials. Clout and Wire Nails.
11. Tools. Sash Fillister—Rebate Planes.
12. Methods. Angles, Mikeing.
13. Setting Out Work. No. 4.

Course B—Lecture First Quarter.

1. Materials—Timber Imported.
2. Tools—Beading Planes.
3. Methods of Sharpening and

- Using Beading Planes.
4. Timber. Structure and Classification—Parts.
5. Tools—Hollow.
6. Methods of Sharpening and Use of.
7. Recapitulation of Lessons on Materials.
8. Recapitulation of Lessons on Tools.
9. Recapitulation of Lessons on Methods.
10. Materials—Nails, Rosehead, Fine Clout.
11. Tools. Sash Planes.
12. Methods—Sharpening and Use of Sash Planes.
13. Materials. Timber, Standard Thickness of.

Course B—Lecture Second Quarter

1. Timber. Structure and Classification.
2. Tools—Bow-saw; Pad-saw.
3. Methods—Sharpening and Using Bow-saw and Pad-saw.
4. Materials—Nails, Floor Brad, Joining Brad.
5. Tools. Gauges, Joiner and Scribing.
6. Methods—Explanation How to Use the Gauge.
7. Recapitulation of Lessons on Materials.
8. Recapitulation of Lessons on Tools.
9. Recapitulation of Lessons on Methods.
10. Materials—Tin Tacks, Flemish Tacks.
11. Tools—Spoke Shave, Use of.
12. Methods—Tongue Joints, Feather.
13. Materials — Screws; Counter-sink, Brass.

Course B—Lecture Third Quarter

1. Materials. Timber, How to Cut Baulk Planks. Sticks.
2. Tools. Straight Edge Spirit-level. Plumb Line; Chalk Line.

3. Methods. Floors, Sleepers, Laying of.
4. Timber. Structure and Classification.
5. Tools—Sliding Level, Mitre Square, Mitre Template.
6. Methods — Scarping Joints. Straps.
7. Recapitulation of Lessons on Materials.
8. Recapitulation of Lessons on Tools.
9. Recapitulation of Lessons on Methods.
10. Materials—Timber-sash frames
11. Tools—Cooper's Croye Shave.
12. Methods—Pail Making of.
13. Materials — Screws; Counter-sink-brass.

Course B—Lecture Fourth Quarter.

1. Materials — Timber. Making Flooring.
2. Tools—Cooper's Compass.
3. Methods—Sliding Sashes of.
4. Timber. Structure and Classification.
5. Tools — Used in Hanging Sashes.
6. Methods. Making Casement Frames of.
7. Recapitulation of Lessons on Materials.
8. Recapitulation of Lessons on Tools.
9. Recapitulation of Lessons on Methods.
10. Materials—Butt Hinges.
11. Tools Used in Fitting Butt Hinges.
12. Methods, Fitting Butt Hinges.
13. Materials—Screws; Japanned, Galvanized.

Course C—Lecture First Quarter

1. Materials — Timber Sold in Quantities of Stack Load.
2. Tools — Axes and Wedged Tools.
3. Methods — Technical Operations of Joinery.

4. Materials — Timber Structure and Classification.
5. Tools for Glueing up Joiners' Work.
6. Methods, Glueing up and Cleaning off Joiners' Work.
7. Recapitulation of Lessons on Materials.
8. Recapitulation of Lessons on Tools.
9. Recapitulation of Lessons on Methods.
10. Materials. Timber in Making Framed Doors.
11. Tools. Augers, Twist Bits, Taper Bits.
12. Methods on Making Sash Doors; Plain Pannelled Doors.
13. Materials. Bolts, Barrels, Tower, Cupboard.

Course C—Lecture Second Quarter

1. Materials. Timber, Quality and Brands of.
2. Tools. Lathe Gauges, Chisels, Calipers.
3. Methods in Use of Lathe.
4. Materials. Lock Mortise, Rim Dead Lever for Doors.
5. Tools Used in Fitting Locks.
6. Methods of Preparing Doors for Mortise Lock.
7. Recapitulation of Lessons on Materials.
8. Recapitulation of Lessons on Tools.
9. Recapitulation of Lessons on Methods.
10. Materials. Timber Used in Making Gates.
11. Tools Required in Hanging Gates.
12. Methods of Hanging Gates.
13. Materials. Brass Bolts, Flush Cranked.

Course C—Lecture Third Quarter.

1. Materials. Window Fastenings, Sash Casements, Sash Cord, Stays.

2. Tools. Circular Saw, Use of.
3. Methods. Technical Terms as Applied Operation of Joining.
4. Materials. Timber for Roofing.
5. Tools in Use of Cutting Roof Timber.
6. Methods, Setting Out Roof of.
7. Recapitulation of Lessons on Materials.
8. Recapitulation of Lessons on Tools.
9. Recapitulation of Lessons on Methods.
10. Materials. Suffolk and Norfolk Latches. Night Latches.
11. Tools. Shoulder Plane, Badger Plane, Compass Plane.
12. Methods. Rebating, Dovetailing, Clamping, Housing.
13. Materials. Blind Fitting Window.

Course C—Lecture Fourth Quarter

1. Materials. Timber for Staircases.
2. Tools Used in Fixing Staircases
3. Methods, Setting Out and Construction of Staircases.
4. Materials for Making Wheelbarrows.
5. Tools Used in Fitting and Fixing Joining Work.
6. Methods as Applied to the Fixing of Door Joints.
7. Recapitulation of Lessons on Materials.
8. Recapitulation of Lessons on Tools.
9. Recapitulation of Lessons on Methods.
10. Materials. Timber, Structure and Classification.
11. Tools Used in Working Cornice Moulding.
12. Methods. Mitering, Projecting Cornices and Mouldings.
13. Materials. Staircases, Newells and Handrails.



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EDITORIAL

THE STATE BOARD OF MEDICAL EXAMINERS.

The Board met in the office of Dr. C. L. Tisdale, the Secretary, Room 929, Butler Building, San Francisco, at 11 a.m. Monday, August 2. The full Board was present, with Dr. George F. Reinhardt, the President, in the chair. On motion a committee on revision of rules governing the Board was appointed. This committee consists of Dr. W. W. Roblee of Riverside, Dr. W. H. Stiles of San Bernardino, Dr. Fred R. Burnham of San Diego and Dr. Dean Tasker of Los Angeles. The committee will report at the December meeting in Los Angeles.

Sometimes an applicant fails by a fraction of one per cent. in general average, or falls a little below the minimum in one branch when the general average is high. It was deemed wise

to have a final court of revision with power, where they thought the case was worthy, of raising the paper to a passing mark. This action to be taken on numbered papers only and BEFORE the envelopes disclosing the name have been opened. Drs. Reinhardt, Vanderburgh, Barbat and Clark were appointed to constitute such committee.

The Naturopaths presented thirty-one names of members of their society to be indorsed by the President and Secretary of the Board in accordance with the law. This makes eighty-six Naturopaths in the State of California. The statement was made on authority that there would not be to exceed four more. Harry Brook of the *Los Angeles Times* was the first one to receive a Naturopath diploma in California. He has retired from active practice.

The President announced that Gertrude Henderson had resigned as ex-

aminer on preliminaries for the Board in Los Angeles, and that B. O. Kinney, vice-principal of the Los Angeles High School, had been appointed to fill the vacancy. The questions to be asked on each branch were then submitted to the whole board. Suggestions as to changes were freely made and we are sure this will prove to be a valuable provision. An examiner may write a question in his office that will appear all right, but when it is read before the whole Board new points and possible answers to the same will be brought out that will make it objectionable.

The examinations began at 9 a.m. Tuesday, August 3rd, and continued until 5 p.m. Friday, August 6th. There were 141 applicants. Each examiner has ten days in which to mark his papers, but he has no idea as to whom the papers belong as he does not have the names, the papers being numbered only.

STATE MEDICAL SOCIETY DEFENDS MEMBERS AGAINST MALPRACTICE.

In the June PRACTITIONER was discussed the plan of the State Medical Society defending its members against suits for malpractice.

The Society and the profession alike are to be congratulated that the plan there outlined has materialized and that beginning July 1, 1909, all members in good standing in the State Medical Society were entitled to defense in any case of malpractice.

It is expected that a separate fund or assessment will have to be levied for this. In this connection and in view of

the other fact also, that the Los Angeles County Medical Association is contemplating a revision of its by-laws, why not increase the dues of that Association not the additional amount of the assessment only, but to ten dollars?

Ten dollars is the minimum price of a malpractice policy when carried in a private company. Is not defense by the State Society also worth ten dollars?

In addition to defense from malpractice suits, the ten dollars so paid would give membership in the County and State Societies, entitle the member to the *State Journal*, and what is especially important, would provide a surplus for the needed development of the County Association.

The Los Angeles County Medical Association has been starving for some time, through lack of money to secure adequate meeting quarters, reading rooms and so forth. The ten dollar fee would provide all these and much more.

Then why not have it. If our San Francisco colleagues can afford to do it, why not we, of this prosperous country south of the Tehachepi?

The benefits received from such an expenditure of ten dollars are so many and so great in value that no reputable physician could well afford to not be a member.

In this connection, too, it may be stated that the Council of the County Medical Association is considering the publication of a new fee table. If you have any suggestions along this line, send them to the Secretary, in the Lissner Building.

In order to place the method of procedure in malpractice suits before our readers, we reprint the directions of the State Secretary, Dr. Philip Mills Jones, as given in the *State Journal*:

"On June 24th, 1909, the Council of the State Society had a special meeting to consider plans for medical defense, acting under instructions from the House of Delegates. After a very careful discussion of the question, it was decided by the Council to undertake the work at once.

"In Pennsylvania, medical defense has been in force since 1905 and has cost the state society not over ten cents per member per year. In New York, the work was begun in 1906 and has cost the state society about fifty cents per member per year. In New York, the very first year the plan was put into operation, malpractice suits were decreased in number 25 per cent.; in the first two years of the work, not a single verdict was obtained against a member in any suit which was defended by the society. Since 1906, six other state medical organizations have undertaken the defense of their members, and in every instance the plan seems to be working satisfactorily.

"With these facts in view, the Council decided to undertake the work at once and to carry it on until the annual meeting, next April, when the House of Delegates may pass upon the matter as presented to them at that time. It is believed that the work can be done successfully at a cost not to exceed \$1 per member per year, and possibly very much less than that when the work is

once started and well organized. For one additional dollar a year, or possibly less than that, you can rest assured that you will not be blackmailed out of any money by this alleged malpractice suit game.

"The State Society has an attorney retained to look after this work; it is no additional expense to any member; he knows that he will be defended and the suit fought to the last ditch, without compromise. A number of county medical societies have already discussed this proposed work and have written their approval to the Council; if your society has not done so, have it taken up at once, discussed, some action taken, and then advise the State Society Secretary, so that it may be a matter of record. It is quite possible that there will be some members who will not wish to pay another dollar a year, even to secure this absolute protection against malpractice suits. But doubtless the number will be small and a good many who are not now members will desire to join their county societies when they realize that this benefit—a very real and tangible one—has been added to the other benefits of membership.

"Now how is the plan to work out? What must you do to secure this ample protection by the State Society? It is very simple. Indeed, the sense of the Council was that the machinery should be made as simple as possible, in order to give the fullest protection and the least inconvenience to the members.

"In the first place, be sure that your dues are fully paid up in your county

society; only members in good standing, dues paid, are eligible to this protection.

"That being done, if you are threatened with a suit, either verbally or by letter, communicate at once—*within twenty-four hours*—with the Secretary of the State Society, so that the matter can be taken up immediately by our attorney; this will, in very many cases, be the end of the matter. If you are threatened by letter, send the letter to the Secretary together with a full account of the case, name, date, diagnosis, treatment, names of witnesses, nurses, consultants, etc.

"If you are served with a summons in a suit, this document, or an exact copy of it, must be sent *within twenty-four hours*, to the Secretary of the State Society, who will at once place the case in the hands of our attorney; all details must be sent at the same time, so that the attorney may be in possession of all the facts in the case.

You will then be sent a blank to fill out and sign. This will authorize the Society to defend the action, through its attorney, and you will agree not to compromise or settle the suit without the consent of the Society, through its attorney.

"No judgments will be paid by the Society, but all costs of defending the suit will be paid by the Society. You will agree not to obligate the Society in any manner to the payment of any sums whatever. In other words, you turn the defense over to the Society, which will pay all the costs of action, and agree not to meddle. Is not that sufficiently simple—and safe?

"All this medical defense work and the funds to pay for it will be in the hands of a special committee of the Council. They will stand back of the attorney, and of course back of them is the whole Council and the State Society.

"Each county medical society will be asked to appoint, as soon as may be, a committee of three on medical defense. It will be the duty of this committee, when a member of the Society is sued or threatened with suit, to investigate the case and make a full report of the exact facts. These suits are dependent upon matters of fact and not matters of law, and so it is essential that all the facts be in our possession at the earliest possible moment.

"When a local attorney is required to attend to an action in some distant county, he will be chosen in some satisfactory way to be determined; probably by the joint action of the defendant, the county society or its committee, and the attorney for the State Society.

"The main idea, however, is to get quick action; to let people know that we are not to be bluffed or blackmailed; to protect ourselves and our members from unjust and iniquitous attacks, and to do it as quickly and as thoroughly as possible.

"Now a word as to what *not* to do. Do not wait till a suit is actually filed against you, if you have reason to believe that it is coming; let the Secretary know about it at once, so that the attorney can take it up and perhaps

prevent a suit. If a suit is filed, do not think about it for a few days and then write; write at once and send the papers and facts to the Secretary. Do

not employ a lawyer until the Secretary has been communicated with, unless you wish to defend the case yourself and not have the Society do it."

EDITORIAL NOTES

Dr. H. H. Sheffield is practicing in Venice, Cal.

Dr. John E. Bacon of Tombstone is spending the summer in the East.

Dr. G. A. Knox of Randsburg, California, is away on a vocation.

Dr. T. E. Cunnane of Ventura has been enjoying a vacation at Lake Tahoe.

Territorial Health Officer Godfrey has removed his office from Tucson to Phoenix.

Dr. Albert W. Moore of Los Angeles has been taking a ten days' vacation in San Francisco.

Dr. Francis H. Redewill of Phoenix is spending the summer very pleasantly at Catalina.

Dr. J. L. McCarthy of Goldfield, Nevada, has been taking a post-graduate course in the East.

Dr. B. M. Smith, formerly of Gardena, is now located at 314 West 61st St., Los Angeles.

Dr. A. R. Brown has been appointed surgeon of the Santa Fe Railroad at San Dimas, California.

Dr. W. P. Wilkins, of New York, has been visiting his brother-in-law, Dr. R. K. Janes, in Pasadena.

Dr. Thos. J. McCoy of Los Angeles has returned from a trip that included London, New York and Philadelphia.

In England one out of every eight women past thirty-five, and one of every eleven men past thirty-five die of cancer.

Dr. R. N. Looney of Prescott spent Elks' week in Los Angeles, cavorting with the other members of the Antlered herd.

Dr. J. K. McDonnell of Prescott spent the month of July with his family in Los Angeles and the near-by beaches.

Our dear friend, Dr. J. H. Davisson of 920 Westlake avenue, who has been confined to his room for eight weeks, is convalescing.

Dr. Chas. B. Canby, formerly of Globe, has returned from a trip in the East, and will probably settle in Northern Arizona.

Dr. L. D. Townsend of Bisbee has taken charge of the Tombstone Hospital for ninety days during the absence in the East of Dr. Bacon.

Dr. Harry E. Crepin, Health Officer of Tucson, Ariz., has been visiting old friends in Ventura, Cal., and at the same time supplying them with trout.

Dr. Mary E. Bates, President Humane Education Society, Denver, Colorado, is very active in regard to the examination and care of school children.

The family of Dr. Ralph F. Palmer of Mesa is spending the summer at Iron Springs, where the doctor visits them occasionally during the week-end.

Dr. C. C. Stephenson, an oculist from little Rock, Arkansas, has located in Los Angeles. The doctor was for years secretary of the Arkansas State Medical Society.

Dr. D. A. Turner of Goldfield, Nev., County Physician of Esmeralda county, and Miss Charlotte Schultz of Walla Walla, Wash., were married in Los Angeles Monday, July 19th.

Dr. Harry G. Ford, graduate of the College of Medicine of the University of Southern California, has been appointed assistant surgeon, National Soldiers' Home, Santa Monica.

Dr. L. L. Lindsey, graduate of the College of Medicine of the University of Southern California, has been appointed resident surgeon at the National Soldiers' Home, Santa Monica.

The total value of leeches imported into the United States in 1908 was \$5341; in 1907, \$6992; in 1906, \$4494; in 1905, \$3862; in 1904, \$3589; in 1903, \$3240, and in 1902, \$2412. This shows the use of leeches to be on the increase.

Dr. Leo Adelmo Schroeder and Miss Ruth Marie Stearns were married at the residence of the bride's parents, Wendling, Cal., on Thursday, April 22. Dr. Schroeder graduated from the College of Medicine of the University of Southern California.

Dr. Idris B. Gregory of Ontario, California; Dr. E. Grove, of San Diego; Dr. J. R. Leadsworth, of Redlands; Dr. J. G. Mackey, of San Fernando, have all recently been in attendance at the New York Post Graduate School and Hospital.

Dr. Clarence E. Moore of Los Angeles is devoting a year to work as assistant in surgery to the Mayos at Rochester. Dr. Moore is now in Los Angeles for a month doing professional work while his father, Dr. M. L. Moore, is taking his vacation.

Dr. Paul A. Adams of Los Angeles, major of the Medical Corps, N. G. C., and Lieutenant C. W. Decker of Los Angeles, assistant surgeon of the Seventh Regiment, N. G. C., have been at-

tending a camp of instruction for medical officers at the Presidio.

Dr. A. J. Rosenberry, who has practiced in Jerome during the past year, has decided to return East, and will resume practice near Chicago. His son, a recent graduate in medicine, has opened offices in Florence, where he is acting as assistant to Dr. Brockway.

Dr. J. L. Johnston (Eclectic) of Los Angeles, died July 23rd, in the Mine Operators' Hospital, Searchlight, Nev. He was investigating some mines and fell into the shaft of the Duplex Extension mine. He fell a distance of 60 feet, sustaining fractures of the skull and a broken jaw.

Dr. F. M. Pottenger of Monrovia has been honored by having the degree of LL.D. conferred upon him by the Otterbein University, Westerville, Ohio, from which he graduated in 1892 with a degree of Ph. B. In 1897 he received a degree of Ph. M., and that of A. M. in 1905 from the same university.

In cases of tetanus that begin within seven or eight days, 80 per cent. die; cases that do not begin until after the eighth day, 80 per cent. recover. Antitetanus serum, while not a satisfactory cure, is most useful as a prophylactic and often seems to absolutely control the spasmodic symptoms.

We heartily thank the publishers of *The Physician and Surgeon* (Detroit and Ann Arbor) for sending that delightful magazine out with its leaves cut. We enjoy cutting the leaves of a book or magazine that is purely literary, but it is annoying to be obliged to stop and cut the leaves of a working periodical.

The *Annals of Surgery* for July contains all the papers read at the recent Philadelphia meeting of the American Surgical Association. No surgeon can afford to be without this great output. By the way, we notice that there is not

a member of the American Surgical Association from either Southern California or Arizona.

The engagement of Dr. Wilfred Grenfell, the Labrador missionary-physician, and Miss Anna MacClanahan of Lake Forest, Illinois, was recently announced. Dr. Grenfell has been decorated by King Edward VII as a Companion of St. Michael and St. George, and he is now to become a member of the Order of St. Benedict.

The medical profession of Southern California has been profoundly interested in the long fight Dr. A. L. Macleish has been making for life. The doctor had what appeared to be a mild attack of typhoid fever when, suddenly, there was intestinal perforation. Laparotomy was performed and he was making a good recovery when pneumonia developed, but now we are glad to say he is rapidly recovering.

Dr. Charles A. Porter of Boston, in an address before the American Surgical Association, reported in the *Annals of Surgery*, for July, gives the history, with numerous illustrations, of a case of MASSIVE KELOID OF FACE AND HANDS. The treatment by operation and skin-grafting was quite satisfactory, but the use of X-rays was of no value.

The *Los Angeles Times* of recent date said: "Dr. W. W. Beckett, Dr. F. M. Pottenger and Dr. F. C. E. Mattison, delegates to the International Medical Congress, which will meet in Budapest on August 29th, are now in Paris. While in London they were honored with seats at the head table at the Independence Day banquet of the American Society, through the courtesy of Ambassador Reid, who was one of the speakers."

"Nux vomica" forms a more important feature of the import trade of the United States than would probably be realized by the average individual un-

acquainted with this particular trade. The Bureau of Statistics' figures show that the importation of nux vomica amounted, in round numbers, in 1908 to 3,000,000 pounds, valued at \$54,000, while the quantity imported in the decade ending with 1908 amounted to about 25,000,000 pounds, valued at over \$400,000. As the United States grows nothing to compete with nux vomica, it comes in free of duty.

Paul Jaffa, the food expert of the University of California, says: The raisin has a distinct place as a food of value, on account of its high nutritive qualities, and for this reason bread made from raisins is of especial value. He gives a few suggestions on making raisin bread, and among others, that the raisins should be minced before being mixed with the dough, and rolled in dry flour first, where the raisins are syrupy enough to make the bread soggy. Chemical analysis shows that in the carbohydrates, or fuel-forming materials raisins have the same value as wheat. They should be as commonly eaten.

Dr. Wm. J. Hawkes of Elden avenue, Los Angeles, had a horrible experience July 24th. He was called hurriedly to an accident case near his home and found the patient to be his own little 7-year-old son, Wm. J. Hawkes, Jr., with a fatal fracture of the skull. The boy was riding a new wheel and turned to get out of the way of an automobile. He ran directly in front of a wagon loaded with brick and was knocked from his wheel and run over before the driver could stop. The doctor has the deep sympathy of the profession in Los Angeles. It seems as though there is hardly room for boys in the streets of American cities.

To exterminate fleas, the *Pacific Pharmacist* says: "Fill a tumbler, pan or other convenient vessel three-quarters full with water, pour on about one

inch of olive oil, place a night float (wick inserted through cork or cardboard) in center of oil. Place this device in center of a larger vessel filled with strong soapsuds. Place this in room, light the wick at night. The fleas are attracted to the light, and you can imagine what will happen. In out-buildings or other rooms than the sleeping apartments kerosene can be used instead of soapsuds. Keep dogs away from houses. Dogs are the greatest flea catchers, incubators and disseminators known. Also fleas are never found in large numbers in cleanly and sanitary surroundings.

Dr. Walter G. Stern says: "In the bismuth treatment we have a means of curing or at least benefiting fistulous tracts, tuberculous sinuses and chronic and subacute cavities, including empyemata, but it will not cure sinuses when the disease is active or when sequestra are present and not removed. He injects first a hot sterilized mixture of one part bismuth subcarbonate and two parts of petrolatum. Each week thereafter, unless the fistula is healed, he injects a mixture of bismuth subcarbonate 30, white wax 5, soft paraffin 5, petrolatum 60. Cold abscesses can

often be cured by evacuating (trocar or minute puncture with tenotome), draining thoroughly and immediately filling with the bismuth wax mixture.—*Cleveland Medical Journal*.

A letter from Dr. W. W. Beckett, dated London, July 7, 1909, says: "Drs. Mattison, Pottenger and myself yesterday called on several surgeons, and in the afternoon saw Mr. Lockwood operate at St. Bartholomew's Hospital. This hospital can accommodate about 750 patients, and has a medical school attached. Today we saw Sir Victor Horsley do some very interesting experiments on a monkey, demonstrating nerve reaction, at the University College, and later saw Sir Watson Cheyne do four interesting operations at the King's College Hospital. We have appointments with Sir Victor Horsley for Thursday, Saturday, Sunday and Tuesday. Tomorrow we will call on Mr. Mayo Robson and Mr. J. Bland Sutton, and take lunch with Mr. G. Lenthal Cheatle. Mr. Cheatle is doing some splendid work along the line of cancer research. The surgery we have seen thus far has been first-class, but I must say the California nurses are far beyond any we have seen here."

CORRESPONDENCE.

BISMUTH PASTE IN FISTULA IN ANO.

To the Editor:

On February 21, 1909, a woman aged 37 years, a widow, giving a negative, non-tubercular family and personal history, came to me suffering from fistula in ano, the result of an ischio rectal abscess, opened two years previously and which had been discharging ever since.

Examination showed a fairly well nourished woman with no evidence of tubercular or other chronic disease. There was a small opening on the skin, discharging pus, one and a quarter inches to the right and three-quarters of an inch below the line of the anus. A probe passed through this opening showed a sinus leading into the rectum, the internal opening of which was one and a quarter inches above the anus.

With formula No. 2 given by Dr. E. G. Beck for the treatment of tubercular sinuses (*Ill. Med. Jour.*, Apr., 1908).

Bismuth subnitrate.....	30	per cent.
White wax	5	" "
Paraffin	5	" "
Vaseline	60	" "

I injected the sinus with an ordinary glass syringe, dry sterilized, and with thorough asepsis until I could feel it enter the rectum upon the examining finger. No antiseptics other than alcohol for cleansing the skin were, or should be, used. The paste should be injected hot and held in place with the finger and piece of sterile gauze until partially solidified. This I repeated once a week. After the fourth injection the internal opening was closed. On March 31, in giving the sixth and last injection, only a few drops could be forced into the external opening. A week later, examination showed the fistula completely healed. It has remained so ever since, giving the patient no further trouble. The learning of a simple method, as this, which saved a painful operation and a tedious, slow healing wound, with a possible loss of rectal control, is to me a greater advance than mastering the technique of the most difficult operation.

PHILIP S. VAN PATTEN, M.D.,
Nordhoff, California.

DEATH FROM ANAESTHESIA.

BANNING, Aug. 4, 1909.

To the Editor:

All deaths from anaesthetics should be reported. Yesterday about 5:15 p.m. Kenneth J., aged 8 years, went onto the table for an appendectomy. The attack began at noon. The boy was apparently in good condition, lungs and heart normal. Owing to a previous attack three years before, I found adhesions that delayed the work a little. However, the appendix was removed and wound closed within twenty-five minutes. As I was completing the last tier of sutures the anaesthetist announced trouble. I ordered anaesthetic (Squibbs Ether) stopped. Efforts to resuscitate were persisted in for nearly an hour, inversion, artificial respiration, stretching of rectal sphincter, strychnine, amylnitrite, tongue forceps, jaw forward, etc., etc. Nothing availed. My assistant told me later that the boy became cyanosed but the cyanosis passed off and he did not notice it again until the anaesthetist announced trouble. Death seemed quite sudden, although what danger signals appeared I cannot state. My attention was fixed upon the abdomen until called to the respiration and pulse, which had ceased. Present were Dr. Smiley and Dr. Holt.

JNO. C. KING.

MISCELLANEOUS

AMERICA AHEAD IN MEDICINE.

**Dr. Walter Lindley, in Tour of Europe,
Finds Little New in Development
of Surgical and Other Allied
Sciences.**

That the water supply of Paris is a disgrace to civilization is the verdict of Dr. Walter Lindley, medical director of the California Hospital, editor of the SOUTHERN CALIFORNIA PRACTITIONER,

member of the American Medical Association, and formerly President of the California State Medical Society.

With Mrs. Lindley, he has just returned to Los Angeles after three months passed in Europe, where he went for rest and recreation, but found himself unable to resist the temptation of visiting hospitals and investigating sociological conditions.

"We were in Paris two weeks," said Dr. Lindley today, "and passed the re-

mainder of the time in London, where Mrs. Lindley has relatives, and in other parts of England.

"In the French capital I was surprised at the water supply, which is a disgrace to civilization. In fact, the water is so impure that it is dangerous. The aim of the people seems to be to prevent the drinking of water and to encourage the drinking of wine.

"In London quite the contrary is true. The water supply is excellent. London seems wide awake in its efforts to put into effect the most modern ideas of sanitation.

"When it comes to hospitals, their equipment and practical work and surgery, America leads the world. The time for the real necessity of American physicians and surgeons going to Europe to study is past. It is of course an advantage to a man in any line to observe how others work, but there is nothing—hardly prestige, nowadays—to be acquired by European study.

"It is possible, however, that in some lines of laboratory work Europe still is in the lead. This is true of the work of the Pasteur Institute in Paris, named after the man who discovered the present treatment for hydrophobia; Koch of Germany and his work in tubercular discoveries, and Sir Almroth E. Wright of London, who has done pioneer work in demonstrating the value of serums and the vaccine treatments.

"I visited several large hospitals in London, being especially interested in the Hospital of Tropical Medicine, being controlled by Sir Patrick Manson, who has many friends in Los Angeles. The association of America in recent years with Cuba, the Philippines and the Panama Canal has made the study of tropical diseases important to all American physicians. The fight against the plague in San Francisco is an instance.

"In the Hospital of Tropical Medicine there are 150 students, from various parts of the world, and all physicians of experience and of prominence in their homes.

"Sir Patrick is very enthusiastic over his ipecac treatment of amoeboid dysentery. A large proportion of both the soldiers and the members of the diplomatic corps who serve in the Philippines return with this terrible disease. Sir Patrick reports uniformly successful results from his ipecac treatment.

"There is a general feeling of hopefulness regarding tuberculosis both in scientific and official circles. There has been a marked reduction in the death rate from this scourge in England, Scotland and Wales in the last twenty years, and the rate steadily is decreasing.

"While in London I made several visits to the houses of parliament, being especially interested in the proceedings in the House of Commons. The members of that branch were considering the budget just presented by Lloyd George, Chancellor of the Exchequer. This budget is creating a great sensation, and, of course, meeting with intense opposition, as it emphatically is a poor man's budget.

"Its great point is to tax the large tracts of land held in England as hunting preserves of the aristocracy. The present liberal government through this budget proposes to make these lands pay to support the government or to make the owners divide them and sell them for agricultural purposes.

"Another point in the budget is the taxing of all intoxicating liquors. In order to make this as unpopular as possible, immediately upon its presentation, and months before it possibly could be put into effect, the liquor dealers raised the price of drinks so as to raise a cry from the poor man, as well as from the rich land owner.

"At present the matter still is under discussion, but it will be passed. It generally is expected that in a year or two the liberal government will be voted out, but its work will endure, nevertheless."—*Los Angeles Express*, June 23, 1909.

EFFECT OF SANATORIA ON LAND VALUES.

The *Boston Medical and Surgical Journal*, in speaking editorially on this subject, says:

"Experience has, finally, shown that a tuberculosis sanatorium, instead of being prejudicial to the locality in which it is placed, not only results in its health improvement, but in point of fact, causes its real estate values to rise. The National Association for the Study and Prevention of Tuberculosis has gathered from twenty-two States, covering every section of our country, convincing data to this effect. We find in the *Survey* of June 19, 1909, a summary of these reports: Over 67 per cent. of the sanatoria have exerted a favorable influence on surrounding property, and in almost as many cases their effect in raising assessable valuations has been direct and measurable. In most of the other instances no differences were observable. In only three localities was it claimed that residents had been repelled. In the vicinity of a sanatorium at Portland, Ore., land has more than doubled in value in three years—the greater demand being close to the institution. At Aiken, S. C., land in the neighborhood of the sanatorium has quadrupled in value since it was built. In Hebron, Me., the advance has been 20 per cent. Like results are reported from Luzerne, Pa.; Liberty and Saranac Lake, N. Y.; Pittsford, Vt.; Mt. Vernon, Mo., and Silver City, N. M. In these places the sanatoria form an important part of local business, and it would be hardly fair, per-

Where a
Daily Catheterism
 is necessary, one thing is essential, viz: that the instrument employed, and the mode of using it, should be those which effect the object with the minimum of trouble and irritation.

—SIR HENRY THOMPSON, *Diseases of the Urinary Organs* (1879), p. 101.

K-Y Lubricating Jelly

reduces to a minimum the trouble and irritation commonly attending a daily catheterism (1) by smoothing the passage of the catheter and (2) by its emollient and soothing action within the urethra.

In collapsible tubes. Sample on request.

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haps, to make them criteria; nevertheless, the effects on values have been found the same in the big cities—New York, St. Louis, Philadelphia, Brooklyn, Boston, Pittsburg.

"The mere fact that any given locality is selected as desirable for the establishment in it of a sanatorium is a guarantee and advertisement that it is a salubrious region."

It is said that a very simple but effective method of destroying flies and mosquitoes infesting living apartments is by placing saucers containing a ten per cent. solution of commercial formaldehyde on tables and window sills near the places infested by the flies. Thousands are killed in a day. The saucers should be emptied of the dead flies and replenished with fresh solution once a day.

BOOK REVIEWS

TEXT-BOOK OF MATERIA MEDICA, PHARMACOLOGY AND THERAPEUTICS. The new (6th) Edition, Revised and Enlarged. A Text-Book of Materia Medica, Pharmacology and Therapeutics. By George F. Butler, M.D., Professor and Head of the Department of Therapeutics and Professor of Preventive and Clinical Medicine, Chicago College of Medicine and Surgery, Medical Department Valparaiso University. Sixth Edition, Revised and enlarged. Octavo of 708 pages. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$4 net, Half Morocco, \$5.50 net. W. B. SAUNDERS COMPANY, Philadelphia, London.

This book is one of the most practical works on Therapeutics with which the reviewer is acquainted. It is a work that is not only useful as a text-book, but meets the requirements of the practicing physician. The fact that it is gotten out by a therapist who has had more than twenty years' experience, both as a practitioner and a teacher, and who is known as a practical, rather than a theoretical man, speaks volumes for the efficiency of the book. The study of the official remedies in this edition has been brought into accord with the Eighth Decennial Revision of the U. S. Pharmacopœia. All the official remedies are mentioned. In addition to these, a few non-official remedies that have been demonstrated to be of sufficient importance, as shown by their more or less widespread employment, have been accorded a place.

Special attention has been given to the pharmaceutical section which will be found very lucid and complete.

It is true that some new and untried remedies have been omitted, but these belong to that class which are too imperfectly known to warrant the sanction of insertion in a volume that is to be placed before students.

Pages 611 to 627, inclusive, are devoted to Animal Extracts, Opsonic Index, and Vaccine Therapy. This chapter, which is prepared by Dr. John A. Hollister, makes a most useful contribution of an interesting subject, and brings the question up to date.

The fact that the work has been adopted as a text-book in many of the best medical colleges in America, together with the call for a sixth edition at this early date, speaks more in favor of the volume than anything that could be said by the reviewer.

THE PRACTICAL MEDICINE SERIES, comprising ten volumes on the year's progress in Medicine and Surgery under the general editorial charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-graduate Medical School. Volume I. General Medicine edited by Frank Billings, M.S., M.D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago and J. H. Salisbury, A.M., M.D., Professor of Medicine, Chicago Clinical School. Series 1909. Chicago, the Year Book Publishers, 40 Dearborn St.

This volume is one of a series of ten issued at about monthly intervals, and covering the entire field of medicine and surgery. Each volume being complete for the year prior to its publication on the subject of which it treats. Price of this volume, \$1.50. Price of the series of ten volumes, \$10.00.

The present volume, edited by Frank Billings and J. H. Salisbury of Chicago, needs little commendation at the hands of the reviewer. No medical man of the standing of Billings and his collaborator, Salisbury, would be satisfied in presenting a volume of this kind to the profession in a manner that would fail to bring a review of medical literature during the past year well up to date in every particular.

To one who wishes to acquire knowledge of the greatest advances in medicine, with the least space of time consumed in so doing, will find no better place to acquire such than in the volume under discussion.

On page 127 under the "use of immune blood" occurs the following: "A healthy man is immune to tuberculosis. He carries in his blood and other cells large quantities of immune bodies which often reach the amount of those arti-

ficially immunized. A notable deficiency in the immune substances of the blood in consequence of an injury to the blood or the blood forming apparatus has the same significance as a marked disposition to the disease. The immune bodies of the blood of immunized men and animals are, in a chemically pure condition, curative and immunizing substances for other men and animals. They act only in a dissociated condition and do not follow the law of chemical but of dissociated equivalents as specific electrons. The tuberculosis immune bodies are applied with advantage in connection with other immunizing substances, with the immune bodies of pyrogenic organisms, etc., as poly—or omnivagant substances for curative purposes. The therapy by immune bodies is not a purely passive therapeutic measure, but both passive and active because the lysocidins dissolve the infectious germs so that the poisons therein contained are made available for increasing the active immunity. A number of other infectious disease like leprosy, suppuration, cerebrospinal meningitis and syphilis, have an immunity mechanism agreeing with that of tuberculosis."

INTERNATIONAL CLINICS. A quarterly of Illustrated Clinical Lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Paediatrics, Obstetrics, Gynaecology, Orthopaedics, Pathology, Dermatology, Ophthalmology, Othology, Rhinology, Laryngology, Hygiene and other topics of interest to students and practitioners by leading members of the medical profession throughout the world, edited by W. T. Longcope, M.D., Philadelphia, U. S. A., with the collaboration of Wm. Osler, M.D., Oxford; John H. Musser, M.D., Philadelphia; A. McPhedran, M.D., Toronto; Frank Billings, M.D., Chicago; Chas. H. Mayo, M.D., Rochester; Thos. H. Rotch, M.D., Boston; John G. Clark, M.D., Philadelphia; James J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Richard Kretz, M.D., Vienna; with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Volume I. Nineteenth Series, 1909. Philadelphia and London: J. B. Lippincott Company, 1909.

A very interesting article on "Occupations and so-called Rheumatic Pains"

is given by James J. Walsh, M.D., Ph. B., LL.D., New York.

He says "that the word rheumatism, like malaria, has been much abused, and that these cases of so-called rheumatism, chronic or muscular, represent one of the worst stumbling blocks to medical practice."

On the whole there is much in the article to be commended, and I think nine out of ten general practitioners would not only be interested, but find much food for thought by carefully perusing the article.

Nearly half of the present volume is given up to the progress of medicine during the year 1908. It is taken up under the head of "Treatment, Medicine and Surgery."

The reviewer must confess that while there are so many other works devoted entirely to the summing up of the progress in medicine and surgery, he is somewhat disappointed with the clinical feature of this work as being somewhat supplanted by this line of work. However, as the work goes to every section of the country and finds its place on the shelves of many medical men who rely largely upon its contents for their reading in medical and surgical lines, it is perhaps wise that this course has been pursued. This is a matter that rests for the editor and publishers to determine. The work is gotten up as usual in attractive style, good type and the ready accessibility of subject matter collected.

THE CURE OF RUPTURE BY PARAFFINE INJECTION. By Charles C. Miller, M.D. Comprising a description of a method of treatment destined to occupy an important place as a cure for rupture owing to the extreme simplicity of the technic and its advantages from an economic standpoint. Published by the Author, 70 State Street, Chicago. Prepaid \$1.00.

The directions for the preparation of the paraffin, and the necessity for asepsis, and the surgical precautions of avoidance of undue distention of the canal, and of entering a vein with the

needle are made very clear by the author. The method is not claimed to be applicable to other than perfectly reducible hernias. To the reviewer it looks less risky and of greater promise of possible success than any other injection method which has come to his attention.

GRANVILLE MACGOWAN.

HUMAN PHYSIOLOGY. An Elementary Text-book of Anatomy, Physiology and Hygiene. By John W. Ritchie, Professor of Biology, College of William and Mary Virginia. Illustrated by Mary H. Wellman. Yonkers-on-Hudson, New York, 1909. World Book Company. Cloth. 80 cents. Mailing price, 96 cents.

An excellent text-book for boys and girls. Physicians can unreservedly recommend this to every family.

THE PRACTICAL MEDICINE SERIES, comprising ten volumes on the year's progress in medicine and surgery under the general editorial charge of Gustavus P. Head, M.D., Professor of laryngology and rhinology Chicago post-graduate medical school. Volume II. "General Surgery", edited by John B. Murphy, A.M., M.D., LL.D., Professor of Surgery in the Northwestern University. Attending Surgeon and Chief of Staff of Mercy Hospital, Wesley Hospital, St. Joseph's Hospital and Columbus Hospital. Consulting Surgeon to Cook County Hospital and Alexian Bros. Hospital, Chicago, Ill. Series 1909. Chicago: The Year Book, Publishers, 40 Dearborn Street. \$2.00. Price of Series of Ten Volumes, \$10.00.

The volume on General Surgery by Dr. John B. Murphy comes to us again this year, and, as heretofore, it covers the work of Surgery for the year past.

The present volume seems to be a decided improvement on those that have been issued heretofore. The general makeup of the book is practically the same, but a decided improvement is noticed in the cuts and illustrations. The following quotation from the introduction seems so important that it will be introduced here as follows:

"The important results in surgery of the heart, large and medium-sized vessels, are most gratifying; and primary ligation of trunk vessels injured in continuity, or the site of aneurismal disease, is rapidly becoming an obsolete practice.

"The early removal of emboli and thrombi before gangrene takes place is a great step in advance, and special

mention should be made of the epoch-making work of Trendelenburg. Arteriovenous implantation and direct blood transfusion are valuable and life-saving procedures.

"The cancer and sarcoma problems are still unsettled.

"Suture of divided peripheral nerves is given as uniform and quick results as the approximation of fractured bones, when the principles underlying it are properly applied.

The terminal results in operation on the stomach and duodenum are improving with discrimination in the selection of operable cases and appreciation of the accepted technic.

"Procrastination and its direct sequel—death—still dominate in both intestinal and hernial intestinal obstruction, notwithstanding the clearly defined differential diagnostic signs and symptoms.

"Good results in perforative peritonitis are being uniformly obtained by timely operations and exact technic.

"The surgery of the ductless glands, as well as of the liver, pancreas and kidney, is advancing with mighty strides.

"The open, visual, and timely surgery of the bladder, renal pelvis, urethra and ureter, is yielding gratifying and un hoped-for results.

"The long-neglected bone and joint lesions are commanding increasing attention and giving good returns for thought and effort. Deformities of bones and joints of the most lamentable and distressing varieties are permitted to occur. The great bulk of these are directly chargeable to inefficient medical attention; they are avoidable, and easily so, by proper care during the progress of the acute disease."

The first chapter is devoted to Anesthesia. A strong point is made for the apparently careless manner in which anesthetics are administered by inexperienced anesthetists.

The editor in closing the subject on Anesthesia makes two statements which are so thoroughly in accord with the idea of the reviewer that they will be quoted here.

"It seems to us with these facts standing out, that there is rare justification for administering anesthetics by inexperienced anesthetists in large public institutions, and that the profession should create a sentiment against its continuance." And again concerning Spinal Analgesia: "The mortality of spinal analgesia is such as to cause it to be abolished as an analgesia of choice, indeed, if not sufficient to cause statutory enactments against its use. How much more proof will be demanded that these analgesic means are dangerous than that already given, before they will cease to be substitutes for anesthesia or analgesias of choice?"

Quite a discussion is given to Bismuth vaselin paste as introduced by E. G. Beck. It is mentioned very favorably as a means of diagnosis and treatment of fistulous tracts.

The formula of paste for diagnosis in early treatment is as follows:

Bismuth subnitrate.....30

Vaselin60

Mix while boiling.

The formula for late treatment is as follows:

Bismuth subnitrate.....30.0

White wax..... 5.0

Soft paraffin..... 5.0

Vaselin60.0

Mix while boiling.

It is apparently a method that has come to stay until something better is found to take its place.

L. S. Bangs is quoted as calling the attention of the profession to the effect of tobacco in surgical practice. He reports three cases in which sudden withdrawal of tobacco following operation, caused restlessness, irritability, melancholia and pseudo-collapse. Of his three cases, two were great smokers, the last one a moderate one.

The symptoms in all were alarming, morphine and stimulants being given before the condition was recognized. Smoking a cigarette was promptly followed by the disappearance of the symptoms in all cases.

Under the subject of Tumors, G. W. Crile is quoted as saying "that although the cause of cancer still remains unknown, many of its phenomena have been carefully studied, and that it occurs in every climate and among all mankind, savage and civilized; in wild and in domestic animals, carnivorous and herbivorous; in birds, fishes, reptiles, even in the lowly oyster. Throughout Nature the histologic picture of any definite cancer is the same."

Farther on this occurs: "Although the primary cause is not known, many of the predisposing causes and precancer states are known and can be recognized. The growth of the carcinoma rarely follows a single trauma, but in the visible fields it is frequently preceded by chronic irritations, by scars and ulcers, by hyperplasia, by chronic inflammation and by pre-existing benign growths. Among the benign growths predisposing to cancer, let us note fibromata, papillomata, adenomata, and cysts. Among the benign tumors of the uterus, 1 in 30 becomes sarcomatous; and in 1 in 50 the uterus becomes carcinomatous. Most innocent tumors of the partoid ultimately become sarcomata. Many irritated moles freely metastasize as deadly melanomata. Indeed, as Bland-Sutton has well said, "The more carefully the histology of tumors is investigated, the more obvious does it become that the borderland between innocent and malignant species becomes less easily definable." We may conclude, then, that chronic irritations, ulcers, and benign tumors are potential cancers, and should be considered in that light. The precancer stage is the prophylactic stage.

CALIFORNIA STATE BOARD OF MEDICAL EXAMINERS.

Questions of the August, 1909, Examination.

CHEMISTRY.

1. Name the three most important ptomaines, outline their origin and give symptoms of ptomaine poisoning. What do you understand by ptomaines?
2. How may arsenic be detected? Give chemical antidote.
3. How is alcohol beneficial in carbolic acid poisoning? What are the symptoms of carbolic acid poisoning?
4. Name some of the impurities of chloroform and give tests by which they may be detected.
5. Name three of the common chemical substances which appear in normal urine. Give the characteristics of diabetic urine.
6. What do you understand by "occult blood" and how would you test for it?
7. What is uric acid? What is its origin and its fate in the human body?
8. What is indican? Discuss the significance of its appearance in the urine and give test.
9. Describe the stomach contents of typical gastric carcinoma.
10. What is the chemical explanation of the souring and curdling of milk? How is soured milk supposed to prolong life?

HYGIENE.

1. What is meant by the term, "typhoid carrier"?
2. What diseases are commonly water borne? What may be contracted from earth?
3. Outline a plan of action after which you would consider that a family in which one member had died of diphtheria, could safely be released from quarantine.
4. Discuss the relation of dairy milk to tuberculosis.
5. Discuss the method of spread of Bubonic plague. Outline a plan for safeguarding a small seaport town against plague.
6. What are the methods in use for the disposal of garbage?
7. Name the three species of tape worms of which man may become the host. In what food are they found?
8. How should barber shops be regulated?
9. Describe four varieties of illuminating gases and their danger to health.
10. Make a diagram showing modern plumbing, from the street sewer, of a house having a bath tub, wash stand and water closet.

HISTOLOGY.

1. Show by drawing, all of the different cells found in human blood, and name them.
2. Describe a lymph gland or node.
3. Describe the descent of the testicle.
4. Draw a vertical section of the skin of the sole of the foot, naming layers.
5. Describe the different kinds of muscle.
6. Draw a cross section of the small intestine, taken from a point near the junction of the jejunum and ileum. Name each layer.
7. Show difference between and name layers of Medullated and non Medullated nerve fibres.
8. From which embryonic layer are the following structures derived? (a) Teeth, (b) Bones, (c) Brain, (d) Fat, (e) Thyroid gland.

9. Identify two specimens.
10. Identify two specimens.

PHYSIOLOGY.

1. Give functions of the cord and tell which are upper and which lower neurons.
2. Give general effect of removal of the cord below fourth dorsal.
3. Enumerate the factors that produce normal pressure and velocity of the blood. Explain the effect of inspiration upon blood pressure.
4. In what manner are the lungs protected from the effects of injurious gases?
5. Locate cortical areas for special senses.
6. Explain the result of stimulation of the depressor nerve of the heart. Of what is it a branch?
7. What is an enzyme? Give origin and action of the following: steapsin, trypsin, ptyalin, amyllopsin, thrombin.
8. What is the physiological significance of shock?
9. What are the principal factors controlling heat loss and heat production?
10. Name in order of importance the forces that maintain venous and lymph circulation.

PATHOLOGY.

1. Name some of the causes of excessive destruction of the red blood corpuscles and describe the results of this destruction in the system.
2. Describe Nature's effects at repair of (a) simple uninfected injuries of the soft tissues; (b) infected injuries of the soft tissues.
3. Explain in full why prolonged physical or mental exertion predisposes one to danger from infection.
4. Describe the condition usually found in Broncho pneumonia at the end of (a) twenty-four hours; (b) at the end of five days.
5. State the cause or causes of and describe the condition found in Chronic Bright's disease (Chronic Interstitial Nephritis) in adults from forty to sixty years of age.
6. Give the cause, morbid anatomy, and usual cause of death in Landry's Paralysis (Acute Ascending Paralysis).
7. In cases of chronic disease of the heart in adults of middle age or past resulting from a remote attack of rheumatism, possibly many years before, describe the condition usually found and why.
8. In malarial infections, describe the conditions usually present in (a) acute cases of only a few days' duration; (b) in chronic cases of many months' duration possibly with no history of an acute attack.
9. Examination of specimens.
10. Examination of specimens.

GENERAL DIAGNOSIS.

1. What can be ascertained by palpation of the radial artery and describe the following varieties of pulse: celer, tardus, bigeminus, di-chrotic, intermittens.
2. Describe trachoma.

3. Describe an attack of acute articular rheumatism.
4. Give aetiology of ileus and describe intussusception in detail.
5. Give aetiology and symptoms of lupus vulgaris.
6. Give the physical signs of a cavity in the lung.
7. Give the symptoms and prognosis of myocarditis.
8. Give aetiology, symptoms and complications of amoebic dysentery.
9. Give symptoms and prognosis of general paresis.
10. Give symptoms, complications and sequelae of diphtheria.

OBSTETRICS.

1. When would you consider pelvimetry necessary? What are the normal diameters of the female pelvis, viz, Transverse, Conjugate, Right and Left oblique? What measurements indicate the induction of premature labor?
2. How would you diagnose ectopic gestation? What are the possible terminations? Symptoms.
3. Mention the varieties of hemorrhage that may occur, from the inception of the pregnancy, to the completion of the puerperium. How control in each case?
4. How would you diagnose an occipito posterior position? Why less favorable for delivery than anterior?
5. In case of labor, what conditions would indicate version, what forceps?
6. Give diagnosis and treatment of a breech presentation, including three methods of delivery of the after coming head.
7. What two varieties of asphyxia do we find in the new born child? Prognosis in each case.
8. Puerperal mastitis, varieties, etiology, symtomatology.
9. What are the symptoms of threatened abortion? What the symptoms of inevitable abortion?
10. What is morning sickness, what its causation? How differentiate from the hypermesis of pregnancy?

ANATOMY.

1. Describe the arrangement of the dura mater and mention four of its uses.
2. Describe the temporo-maxillary articulation.
3. What structures can be palpated in the anterior median line of the neck?
4. What muscles, other than those of the arm, forearm and hand, are supplied by branches of the nerve trunks which form the brachial plexus?
5. What are the relations of the stomach?
6. Give the topography of the gall bladder and the appendix.

7. What forms the portal circulation and how does it connect with the systemic?
8. What structures pass under Poupart's ligament?
9. What cutaneous area, muscles and articulations are supplied by the obturator nerve?
10. Describe the arrangement of the bony arches of the foot.

BACTERIOLOGY.

1. Name the three great classes of Bacteria, based on the shape of the individuals.
2. Name five pathogenic bacteria which do not stain by Gram's method.
3. Classify the cocci, according to the arrangement of the individuals composing the groups.
4. Briefly describe the method of staining the tubercle bacillus by the Ziehl-Neelson method.
5. (a) Name the bacterium most commonly associated with specific urethritis.
(b) What staining peculiarity distinguishes it from other germs found in the inflamed urethra?
6. What is the distinctive difference between the Bacillus Coli and the Typhoid Bacillus when grown in the form of a stab culture in the dextrose-agar?
7. What difference, if any, is there between the Micrococcus meningitidis and the Pneumococcus, when stained by Gram's method?
8. What is the difference in the action of antitoxic and antibacterial sera on bacteria and their toxins?
9. Examination of specimen.
10. Examination of specimen.

GYNAECOLOGY.

1. How would you make a bi-manual examination of the uterus?
2. Describe a case of procidentia uteri.
3. What do you understand by the trendelenberg position, and what is the object of this position in examination or operation?
4. Describe an enterocele, and how many forms occur, giving their location.
5. How would you make a diagnosis between a large ovarian cyst and abdominal dropsy?
6. What do you understand by Atresia of the uterine canal?
7. Differentiate between hydrosalpinx and pyosalpinx.
8. What important arteries are encountered in the operation for vaginal Hysterectomy? Give their origin.
9. Give the distinguishing features of a dermoid cyst of the ovary.
10. Describe a vesicovaginal fistula, giving symptoms.

THERAPEUTICAL HINTS.

Pepto Mangan (Gude) is free from the irritant properties that belong to many preparations of iron, and can be given as long as necessary without producing intolerance or gastro-intestinal derangement. Periodical blood exami-

nations will evidence the prompt and progressive increase of red cells and hemoglobin, and the gradual return of color will show the general improvement of the patient. It is especially useful for the chloranemic school girl.

As an antiseptic as also an anaesthetic, Campho-Phenique for the past twenty-five years has fully demonstrated its superiority. As a dry dressing for ulcers, wounds, skin diseases, etc., it has no equal, and is both recommended and used by America's prominent surgeons and physicians. As a general surgical antiseptic, it not only inhibits but destroys bacterial growth; Campho-Phenique should be a permanent fixture to all medicine cases. Any inquiry for a sample, addressed to the Campho-Phenique Co., St. Louis, Mo., will receive immediate and courteous consideration.

Abbott's Saline Laxative has two features which distinguish it from the common run of saline cathartics: First, when taken in cool (not cold) water immediately on rising, it acts *once*, in an hour or two and usually no more.

In hay fever adrenalin is capable of controlling the catarrhal inflammation, allaying the violent paroxysms of sneezing and the abundant lacrimation, cutting short the asthmatic attack when it becomes a part of the clinical ensemble, and, finally, sustaining the heart and thus preventing the great depression that usually accompanies or follows the attack.

While not a specific in the strict meaning of the word, Adrenalin meets the condition very effectually and secures for the patient a positive degree of comfort. It controls catarrhal inflammations as perhaps no other astringent can. It allays violent paroxysms of sneezing and profuse lacrimation by blanching the turbinal tissues and soothing the irritation of the nasal mucosa which gives rise to those symptoms. It reduces the severity of the asthmatic seizure, in many instances affording complete and lasting relief.

There are four forms in which Adrenalin is very successfully used in the treatment of hay fever: Solution Adrenalin Chloride, Adrenalin Inhalent, Adrenalin Ointment, and Adrenalin and Chloretone Ointment. The solution, first mentioned, should be diluted with four to ten times its volume of physiological salt solution and sprayed into the nares and pharynx. The inhalent is used in the same manner, except that it requires no dilution. The ointments are supplied in collapsible tubes with elongated nozzles, which render administration very simple and easy.

Messrs. Parke, Davis & Co., Detroit, Mich., have issued a very useful booklet on this disease, containing indications for treatment, preventive measures, etc. Sent free to physicians on written request.

CALIFORNIA HOSPITAL NURSES' ALUMNAE ASSOCIATION NOTES.

The regular monthly meeting of the California Hospital Nurses' Alumnae Association was held at the directory rooms, 1103 West Eighth street, on Monday, July 26th. Mrs. Durbin, vice-president, presided.

The Programme Committee were fortunate in securing Mrs. Florence Collins Porter, who gave a most interest-

ing address on the principles and work of the Emanuel Movement.

Miss Mary C. Thomas, class of '08, Miss Jessie V. Young, class of '09, Miss Mildred Nichols, class of '09, were elected to membership.

The record sheet contained the following items of interest:

Mathie's Malt Tonic

The Perfect Food Drink.

ENDORSED BY LEADING PHYSICIANS
EVERYWHERE.



The stamina of the English and German people is due in a large measure to the use of malt liquors, the salts obtained from the malted barley being of especial benefit. As is well known, MATHIE'S MALT TONIC is a nourishing tonic, enriching impoverished blood and containing a large amount of nerve food rendering it an ideal treatment in all "run down" conditions.

We offer MATHIE'S MALT TONIC for your use. It is palatable, nourishing, stimulating and refreshing, with just enough alcohol to preserve it, and at a price which puts it within reach of all.

Insist Upon Your Druggist Giving You Mathie's Malt Tonic.

The Mathie Brewing Co: 1834-1856 East Main Street
Los Angeles, Cal.

Your clients who are afflicted with

DEAFNESS

will find it to their interest to investigate our

Hearing Appliances

We carry the best hearing appliances obtainable, including the now well-known electric

Acousticon and Phonette.

Free demonstrations and trials. Prices of appliances range from \$2.00 to \$100.00. Catalogues mailed free.

Marshutz Optical Co.
555 S^o BROADWAY.
LOS ANGELES, CAL.

FOR SALE

At a very reasonable price, one McIntosh wall plate in fine oak case, nearly new; one Globe Nebulizer with water pump; one McIntosh hand battery, both currents; one Galvanometer. Apply to Dr. R. C. Olmsted, 309 E. Colorado St., Pasadena, California.

T. W. Bishop, M.D. Supt. Edith W. Carroll, M.D. Asst. Physician.

PASADENA SANITARIUM

—FOR—

NERVOUS and MENTAL DISEASES

A home-like private retreat. Beautifully located. Secluded, yet readily accessible. Thirty acres fine grounds. Cottage plan.

Delightful Home for Chronic Cases. Hydrotherapy, Electricity, Massage. Location 20 minutes' ride from Los Angeles, near Pasadena Short Line in Oneonta Park, portion of South Pasadena. Los Angeles Office, Auditorium Bldg., afternoons—phone F 8047. Sanitarium office phone C9234. Address Dr. T. W. Bishop, South Pasadena, Cal.

Miss Simpson and Miss Hilton are enjoying a month's outing at Tent City, Coronado. They will attend the State Nurses' Convention, which meets at Hotel del Coronado August 2 to 4.

Miss Williamson, assistant superintendent of the California Hospital, and Miss Bohanna, one of the head nurses, will also attend the State Convention.

Miss Cochran, superintendent of the surgery, is away for a month's vacation.

Miss Gertrude Hart, class of '05, has been appointed head nurse of the first and second floors, main, of her alma mater.

Miss Marks has accepted a hospital position in Clifton, Ariz., and Mrs. Harshaw Wilson one in Bakersfield, Cal.

Miss Margaret Martin and Miss Cresce are visiting their former homes in the East.

Miss Barna has been called East by the serious illness of her mother.

Mrs. Cutler has gone to Long Beach for the summer.

Miss Helen Mills is visiting in San Francisco.

Miss Margaret E. Waller, who attended the National Associated Alumnae Convention in Minneapolis, has returned to her position as superintendent of the Bard Hospital, Ventura.

Miss Chaney, who has been doing hospital work in Clifton, Ariz., for the past six months, has returned to this city.

Miss Caywood is again occupying a position in the Whittier Hospital.

Some recent weddings are: Miss Inez Blackledge, '06, and Mr. J. D. McKay, married June 27th.

Miss Hazel Story, '04, and Mr. Daniel Clarence Smith, married June 14th. They will reside in Spokane, Wash.

Miss Augusta Odemar and Mr. W. F. Liddington, married July 21st. Miss Odemar was the first post-graduate of the California Hospital.

Mrs. Jessie Boyce, née Marie Patterson, class of '04, has returned to her home in Flagstaff, Ariz., after several weeks' visit in this city.

Born, to Dr. and Mrs. Sumner J. Quint, July 23rd, a twelve-and-a-half-pound boy. Mrs. Quint was Miss Stella Wilson, class of 1900.

Born, to Mr. and Mrs. Kreidler of Altadena, July 18th, a son. Mrs. Kreidler was Miss Josephine Boyer, class of 1900.

GENIUS AND THE LAST BORN.

Contrary to the generally accepted dictum that geniuses have been the first born of their parents, the *Medical Times* of December, 1907, gives the following: "Coleridge, the last of thirteen children; Cooper, the eleventh of twelve; Washington Irving, the last of eleven; Balzac, the last of three; George Eliot, the last of four; Napoleon, the eighth and probably the last of his family; Daniel Webster, the last of seven; Franklin, the last of seventeen, and the last born of several generations; Rembrandt, the last of six; Rubens, of seven; Landseer was the fifth of seven; Von Weber the ninth; Wagner the last of seven, as also Mozart; Schumann the last of five, and Schubert the thirteenth of fourteen."

Todd White in *British Med. Jnl.* highly recommends the application of the tincture of eucalyptus for the arrest of any form of hemorrhage. He mentions one case of a boy, who had a tooth extracted three days before, and had persistent hemorrhage from the socket. Another case was that in which there was profuse hemorrhage from a cut in the patient's foot, and in another case the hemorrhage followed the application of a leech to the gum. He also calls attention to the use of this preparation as a dressing on lint after circumcision or other minor operations.

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DR. WALTER LINDLEY, Editor.

DR. F. M. POTTENGER, DR. GEORGE H. KREISS and DR. JOHN W. FLINN,
Assistant Editors.

DR. H. BERT ELLIS, DR. GEO. L. COLE and DR. W. JARVIS BARLOW,
Associate Editors.

THE NECESSITY FOR CORRECT REFRACTION.

BY M. MORGAN CLOUD, A.M., M.D., LOS ANGELES, CAPTAIN, MEDICAL CORPS, U. S. ARMY,
(RETIRED).

There is no subject in medicine that demands greater attention than that of refraction. The specialist should give it the most careful attention in order to do his work scientifically and practically. The general practitioner should know the importance of refraction in order that he may be capable of judging when it is probably needed in a case and realize the importance of sending his cases to one who is competent to do correct refraction; and not fall into the habit of telling them to go and get glasses, leaving it to the patients themselves as to whom they should consult, which often results in their going to an optician or jeweler for glasses.

Refraction is one of the greatest of surgical procedures for the correction of abnormal conditions. There is no branch of surgery where one gets such satisfactory results, when properly done, as in refraction. Equally there is no branch of surgery where the benefits are less realized or where the patient is more dissatisfied than where a case of refraction has been improperly done.

It may be said that Donders was the

first man to do accurate and very scientific refraction, and many who do not keep up on refraction have an idea that there has been no improvement in refraction since his day. But this is a great mistake for there have been many improvements since his time, and there will continue to be many improvements in refraction long after our work is ended.

Another great mistake is the idea that careful and scientific refraction can be done with many of the ophthalmometers. This idea is responsible for many cases of refraction falling into the hands of opticians and jewelers who are incompetent to do refraction because they know nothing about the eye or any other part of the human anatomy. It is equally as absurd to have a jeweler or optician to fit glasses as it was in former days to have the barber bleed people for every known disease while he had no knowledge of anatomy or surgical cleanliness.

In the first place jewelers and opticians cannot use a mydriatic and precise refraction cannot be done without

a mydriatic. In the second place every case of eye trouble that comes for examination should be examined to see if there is any diseased condition of the eye. In many cases where there is no disease of the eye itself there are other defects of health that require attention, and until they are remedied, there will not be much manifest relief for the patient even if he were correctly refracted by a competent refractionist.

Do we want precise results in our refraction? Yes, absolutely, just as we want the parts of a fractured bone put in their normal position; and, as the eye is the most delicate of all the organs of the body, it is, therefore, necessary that refraction should be done more carefully than any other surgical procedure. If it is not precise then our results will not be satisfactory.

Reverting to jewelers and opticians it may be asked, Do they get beneficial results in refraction? No, they don't. As has been said before, refraction is surgery in the truest sense, and it is surgery that requires not only skill, but it necessitates on the part of the person practicing it a knowledge of mathematics, optics and light. It also necessitates the ability to distinguish between a physiologic and a pathologic appearance of the fundus as a cause of the disturbance of vision. It necessitates a knowledge of the relation existing between optical defects and functional or organic disturbances that, to one without such knowledge, have no apparent relation to the eye. In other words, the refractionist should be able to make a proper diagnosis and to give a proper prognosis and treatment. It is simply absurd to expect this from opticians and jewelers.

All subjects under forty-five should be refracted under a mydriatic. There are a few against this procedure, but they are so infinitesimally small in number that they can be disregarded just as one drops the product of two infinitesimals in the Calculus. Is there

any danger from the use of mydriatics? No, not in the hands of a competent oculist. The idea that mydriatics are dangerous is spread by non-medical prescribers such as opticians, jewelers and the various forms of peddlers of glasses. There may arise a contingency of a patient over forty years of age who has a glaucomatous tendency, but this condition will be recognized by the competent oculist as no patient over forty years of age is ever subjected to a mydriatic without first determining if such a condition exists, and if it does exist, it is a thousand times better to have it discovered by an oculist who will know how to handle the case than to have the patient subjected to improper meddling by an incompetent layman. Then a mydriatic has a beneficial effect on the asthenopia and hyperemic fundi of those suffering from eye-strain. The effects of homatropine soon wear off and by the third day there is no discomfort from its use; and no discomfort at any time except from very bright light where dark glasses are not worn (and they always should be worn while the pupil is dilated) or possibly from blurred vision where there is extreme ametropia. One can use homatropine quite safely up to fifty years of age where there are no indications of glaucoma. The majority of the leading oculists do so. It may be necessary to use atropia in some cases in young subjects, but homatropine will usually answer the purpose quite satisfactorily.

One often hears the statement made by opticians and jewelers and occasionally by an oculist, "Use the ophthalmometer or get the manifest ametropia and then fit your glasses." But how can one get the total amount of refractive error or form any idea of the amount of correction that should be given the patient? He cannot do so. For instance, take the following case: Boy, age 7; had headaches and was not able to carry on his work in school.

while his parents observed that there was squint in one eye at times. On examination under a mydriatic it was found that this patient had 6 dioptries of hypermetropia without corneal astigmatism. There was only .50 dioptre of manifest hypermetropia. This patient had been to six different opticians, who had examined him with ophthalmometers and, of course, without a mydriatic. He was wearing $+1.50 \odot +1.50 \text{ cx} 90$ for each eye, which were a positive harm to him as the meridians were equal and he required spheres only, while if he had been given spheres of only $+1.50$ dioptre, they would have been of very little use to him. In cases of this kind it is impossible for the patient to say whether he can see better with a sphere or a compound. His vision is too poor for him to tell the difference. Under a mydriatic and with retinoscopy there were found 6 dioptries of hypermetropia with no astigmatism, the two principal meridians being equal. He was given 2 dioptries of correction for the time being and two months later he was able to take two more dioptries, and he now has no headaches, no squint, and is able to do just as good work in school as any of his classmates, while his parents are delighted with the result. The following case of mixed astigmatism is reported as being instructive in connection with this paper. E. J. B.; age, 19; born in U. S. of German parents; had poor vision and headaches. Was fitted by opticians who did not relieve her headaches or benefit her vision very much. Under a mydriatic and with retinoscopy there was found the following refractive equation: R. E. vertical meridian, -4.00 dioptries; horizontal meridian, $+4.50$ dioptries. L. E. vertical meridian, -4.00 dioptries; horizontal meridian, $+3.50$ dioptries. On restoration of the accommodation she accepted R. E.— $3.50 \odot +3.50 \text{ cx} 90$; L. E.— $2.75 \odot +3.50 \text{ cx } 105$. With each eye she now had 20-30 vision and 20-20 when using

both eyes. It is simply absurd to talk of handling such cases without a mydriatic and one cannot determine the refractive error with an ophthalmometer. Retinoscopy is the only scientific method.

It is often heard among a certain class of oculists that if glasses do not improve the vision there is no need for them. No statement could be more absurd. The writer recently had as a patient a dental student who came to him wearing weak compounds. Under a mydriatic and with retinoscopy it was found that he had 1 dioptre of hypermetropia without any astigmatism. With the trial set it was impossible for him to tell whether he saw better with a sphere or a compound, but with retinoscopy there was no trouble in determining that he needed spheres only. He was given $+1.75 \text{ S.}$ for each eye and has never had any headache since. Before refraction his headaches were almost intolerable and he was thinking of giving up his work in dental college because the opticians told him that his headaches were probably caused by some other defect than his eye-strain. The glasses did not help his vision a particle, for he could read 20-20 without glasses, and they were not expected to help his vision as the vision is usually good in such cases, the glasses only taking a part of the work off the ciliary muscle.

Right here is where the trouble comes with school children who often suffer from hypermetropia and at the same time have perfect vision as far as seeing test type is concerned. They are examined by a layman or some one else who is not competent to make a diagnosis and, being able to read the 20-foot type at 20 feet, are dismissed with the statement that they do not need glasses. Whereas they are constantly making a great effort to overcome their hypermetropia and in consequence suffer from headaches which could be relieved by proper glasses. If they are sent for

glasses they only too often go to an optician, who either gives them compounds when they should have spheres or vice versa, or else under corrects or over corrects them. Hence they get no relief until finally they fall into the hands of the oculist, who finds and corrects the refractive error. In myopia of moderate degree it is best to correct the total amount of refractive error and have the patient to wear the same glasses for both distant and near work. **This puts the eyes in a more normal condition** and the myopia is less likely to become progressive. For the higher degrees of myopia it will be necessary to give two sets of glasses—one for near work and one for distant vision.

In patients over fifty in whom it is deemed best not to use a mydriatic one can do retinoscopy by means of "fogging" and by several sittings get fair results.

In this connection it may be well to speak of squint and heterophoria. In many cases of squint a correct refraction will relieve the difficulty and especially is this true in cases of high hypermetropia in the young where squint is just beginning to be manifested. If the squint is not relieved by refraction, one will be compelled to do tenotomy, advancement or a combination of the two as circumstances may require.

In the majority of cases of heterophoria a correct refraction will bring relief. In cases of esophoria and exophoria where a precise refraction and appropriate exercise of the muscles have not brought relief, it may be necessary to resort to surgical interference on the appropriate muscle. Prisms do not accomplish much here. In cases of hyperphoria of moderate degree where refraction has not brought relief, prisms

often do a great deal of good, dividing the strength of the prism between the two eyes, using a prism with the base down in front of the left eye and a prism with the base up in front of the right eye in cases of left hyperphoria; and a prism with the base up in front of the left eye and a prism with the base down in front of the right eye in cases of right hyperphoria. In extreme cases it may be necessary to resort to surgical interference on the offending muscle. Summary:

(1.) A mydriatic should be used in all cases under forty years of age and in most cases up to fifty where there are no evidences of glaucoma.

(2.) It is not dangerous when properly used and one cannot get precise results without a mydriatic.

(3.) Retinoscopy is the only exact method at the present time for measuring ametropia. Ophthalmometers are of little use in the majority of cases.

(4.) One should be especially careful not to give spheres where compounds are required or compounds where spheres are required. One cannot be too careful in this regard.

(6.) Opticians and jewelers are absolutely incompetent to refract cases and the general practitioner should always bear this in mind and, if it is impracticable to send his patients to an oculist, he should get a trial set and do his own refraction.

(7.) Refraction relieves many cases of squint and heterophoria and prisms are of little value in these cases except in moderate cases of hyperphoria.

(8.) In cases of squint and heterophoria not relieved by glasses a surgical operation on the offending muscle will probably be necessary.

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APPENDICITIS—ITS SURGICAL TREATMENT.

BY E. A. BRYANT, M.D., LOS ANGELES, CAL.

Nearly all surgeons and clinicians agree that the best results are obtained by removing the diseased appendix as soon as the diagnosis has been made, provided that there are no complications that render an immediate operation unjustifiable.

While it is a fact that a certain percentage of cases will temporarily recover without operation, some patients even may never have more than a single attack, it is nevertheless true that no one can tell which case will terminate favorably or which will progress to gangrene and the attendant peritoneal and other complications. The exact condition of a diseased appendix in an unopened abdomen is possessed by no one and can only be surmised by the clinical symptoms. Every surgeon who does much operating knows how often these symptoms are fallacious. The smallest appendix I ever saw caused most violent symptoms, intense pain, high fever, rigidity of the muscles, etc., and the appendix was scarcely one-half inch in length and about one-sixth in diameter, a case of obliterating appendicitis which would have cured itself in a very short time. The largest appendix that I have seen did not cause a symptom that could be referred to the appendix. The appendix was over nine inches long and about four inches in diameter and was only noticed after the abdomen had been opened for a cyst of the ovary.

Some advise to wait until pus has formed before operating, but it is only necessary to picture two operations to arrive at the reasonable conclusion. One the removal of the appendix without pus. Here a clean, small abdominal incision, appendix readily removed, the opening in the wall of the caecum sutured and the abdominal wound aseptic-

ally closed. The other a collection of fecal pus, which in its escape comes in contact with the incision and its contagious parts, the appendix excised under unfavorable circumstances and with the possibility of infection of the general peritoneal cavity. The abdominal wound cannot be closed, but must remain wholly or in part open to afford drainage and then is subsequent tedious healing by granulation, while later a ventral hernia is apt to come and with the constant danger of intestinal obstruction or the various forms of sepsis.

There are several incisions through the abdominal wall, each of which has their advantages in given cases.

The incision should be in the right iliac region and should aim to secure the readiest access to the appendix (when required) and the least probability of subsequent hernia.

I prefer the simple incision through the right rectus muscles as it can be done easily and rapidly, and can be enlarged at will with perfect safety. Each layer of the abdominal wall should be divided to the same extent as the skin. When the structures underneath the rectus muscles are exposed, they should be caught by a pair of forceps on each side of the wound, traction made on the forceps to raise the tissue away from the underlying intestines and the cut through the peritoneum made during the expiration. The peritoneal wound can be enlarged by blunt scissors.

In clean cases the finger is introduced into the abdomen and the appendix felt for and if found brought out; if not, the large bowel is brought out and the bands are followed until the appendix is seen. When the wound is small, care should be taken not to deliver too much of the caecum at one time, but to re-

place some before delivering more, otherwise you may have enlarged the abdominal wound. To reduce the caecum, as soon as the appendix is delivered the mesentery is ligated by perforating it as close to the appendix as possible with a pair of forceps, carrying a fine catgut ligation which is tied around the meso appendix when the forceps are removed and the meso appendix divided with scissors.

The removal of the appendix may be done in many ways, by the cuff method, purse string, cutting between forceps and either touching the stump with acid or covering it over by sutures or simply dropping it. The necessary faults to look out for are:

1. No considerable stump of appendix should be left outside or inside the bowel.

2. The stump should be dealt with in such a way as to have no opportunity for leakage of feces or septic material from the bowel, and should allow no possibility of hemorrhage into the bowel, or peritoneal cavity or cellular tissue.

3. No unnecessary opportunity for adhesions should be created with a stump.

4. The above advantages in dealing with a stump should be attained without tedious sewing, undue manipulations, or unnecessary opening of the bowels.

Ordinarily my preference is to grasp the caecum with the thumb and finger and cut the appendix off flush with the caecum. The wound in the caecum is sutured with fine catgut taking in the serous muscular and submucous coats and with a second row of sutures of the Lambert variety invaginating the first row into the caecum.

In dealing with any variety of peri appendicular suppuratation, as soon as the peritoneum is incised the general peritoneal cavity should be protected

from infection by the proper disposition of gauze pads. The first pad to be introduced should pass from the right iliac fossa into the pelvis and will hold the small bowel away from the lower angle of the wound. Then as many more pads as may be required are to be placed from below upward until the entire median side of the wound as well as the lower extremity is lined with gauze and then the upper limit of the field of operation must be protected. The abscess should then be opened by breaking through the layer of exudate which forms its wall, the cavity should be wiped out with gauze, the appendix located and removed if it can be done without too much danger. As a working rule, it may be stated that no effort to remove the appendix should be attempted if risk to the patient is entailed. Drainage provided for and the wound closed with the exception of the side of the drain.

In diffuse purulent peritonitis the appendix should be removed and thorough drainage established by gauze and tubes (either rubber or glass), and the patient placed in a semi-sitting posture in bed. The pelvis and each flank must be drained. Every suppurating focus must be separately drained.

In closing the abdominal wound in clean cases I prefer a buried continuous catgut suture for the peritoneum, then transfixing the rectus and stitching the sheath and closing the skin with an intercuticular stitch.

When drainage is employed interrupted sutures are used so that the whole wound will not gap if one suture is infected.

In clean cases I do not use dressings protecting the wound from contact with the night shirts and bed clothes by means of a cradle. Where drainage is used, gauze, cotton, adhesive straps and bandages are needed.

THE ECONOMICS OF OPHTHALMIA NEONATORUM.*

BY GEORGE H. KRESS, M.D., LOS ANGELES, CAL.

PROFESSOR OF HYGIENE, LOS ANGELES DEPARTMENT, COLLEGE OF MEDICINE, UNIVERSITY OF CALIFORNIA.

In this very material age in which it is the lot of those present to be living, it has been found necessary, if an impression is to be made on the people of a state or nation regarding a problem of altruistic responsibility, to interpret such problem or problems in terms of dollars and cents. Therein lies the reason for this paper on the Economics of Ophthalmia Neonatorum.

Through bitter experience we have learned that while ideally "right is might," in practice more sordid factors must be taken into consideration, particularly if legislatures are to be induced to take that action which is so necessary when hygienic evils and sanitary crimes are to be remedied.

It is a tribute to the crudity of our boasted present day civilization, that while everywhere in the United States (and in foreign lands as well, for the matter of that) we spend millions of dollars yearly in the support of methods and institutions designed to enforce justice and to safeguard the rights of citizens from the onslaught of a few vicious persons called criminals, we are usually reluctant to spend even a paltry sum, in efforts to overcome criminal faults of civilization, faults that are responsible for a vast deal more of misery, sickness and death, than are the robbers and murderers, for whose prosecution and punishment we spend untold wealth in the perpetuation of courts of justice, jails and prisons.

It would seem, after all, that civilized man is but little differentiated from his barbaric brother, who practices to the utmost the adage "An eye for an eye, and a tooth for a tooth." Robbery, or injury to body or death from murderous instrument like knife or pistol,—these are modes of injustice that spon-

aneously arouse resentment and revenge in all peoples, and as a consequence, man has abundantly provided for the prompt punishment of all such offenders.

We have not yet, however, educated the public conscience (if in fact it can be claimed that we have educated the professional conscience) to a realization of the fact that it is just as great a crime to allow helpless human beings to have their usefulness as citizens impaired, or their lives destroyed, through preventable diseases, as it is to destroy the health or lives of those same persons by sand-bag, dagger or other weapon.

Yet the time will come, we feel certain, when man will take note of his responsibilities in these problems of preventable fatal diseases, and that he will as gladly give of his best effort to overcome them, as he has given in the past, unlimited energy and wealth, in his endeavor to prevent vicious men from preying upon their fellows.

It is to be remembered that the solution of these problems is largely a matter of education. Witness for instance, the dread of the laity throughout the civilized world of the disease known as leprosy, and contrast that fear to the almost cold indifference toward the plague known as tuberculosis. Through the Bible and other literature, civilized peoples of all classes are familiar with the horrors of leprosy and yet we know it to be less infectious than its sister disease, tuberculosis. A case of leprosy in the county of Los Angeles provokes unlimited newspaper comment. Fifteen hundred deaths yearly from tuberculosis in the same county hardly evoke a passing notice. In fact, one of our papers has a rule, we have been informed,

*Read before the Los Angeles County Medical Association, March 5, 1909.

never to print if possible the word tuberculosis.

This same attitude could be instanced in other scourges and among such other diseases is that condition which is the subject of discussion this evening—ophthalmia neonatorum.

Ophthalmia neonatorum, as we all know, is an inflammation of the conjunctivae of the newly born due to the gonococcus of Neisser. If this disease ran a simple inflammatory course affecting only the conjunctival structures, then no matter how painful the disease might be, there would be no need for this paper on the economic phase of the disease.

But because as a matter of fact it is associated with complications such as corneal ulceration and perforation, as well as of other structures of the eye, that lead to impairment of vision and frequently to blindness, it becomes a very pertinent problem, not only to the patient and to the ophthalmologist, but to the state as well, to prevent this disease.

Ball states that it has been computed that 30 per cent of the inmates of German and Austrian asylums were rendered blind by ophthalmia neonatorum, and that Fuchs had collected statistics to show that of 300,000 blind persons in Europe, 10 per cent, or 30,000 persons had become blind through this one disease!

Lewis has computed the number of blind persons in the United States to be 50,000. Of this number New York contributes more than 6,000 and California more than 1,200, making the number of persons whose blindness is due to ophthalmia neonatorum (which is about 10 per cent of the whole) about 600 for New York and about 120 for California.

As the New York Association for the blind well states in its 1909 report these figures mean "that just that many persons who have spent their lives in dark-

ness, distress and often despair, need not have been so afflicted; that children who have never known what it is to run about in the sunshinre, to see birds, and flowers, and grass and trees, to look into the faces of father and mother, might have *seen*, might have had the clear, bright eyes of other merry, active children had it not been for somebody's carelessness on the day that they were born."

The last words, "had it not been for somebody's carelessness on the day that they were born" are worthy of repetition, for it has been shown that gonorrheal ophthalmia can be prevented by a very simple procedure: that of silver nitrate instillation at the time of birth.

Kostling of Halle, giving the results published by obstetricians in various countries up to 1896, showed that:

Of 17,767 births with no treatment of the eyes, 9.2 per cent developed ophthalmia in infancy, and of 24,724 births with treatment by 2 per cent solution of silver nitrate only .65 per cent developed ophthalmia in infancy, this latter figure showing the wonderful and beneficent results of the Crede method.

This disease because of its nature, and the kind of midwifery which is so largely a factor in its responsibility, makes its greatest inroads on the poor.

As a consequence the more than 400 persons of New York whose blindness is due to gonorrheal ophthalmia, cost that state for their special schooling and care as dependents and paupers the sum of not less than \$110,000 yearly. This is on a basis of a yearly outlay of only \$270 per such blind person. The United States, as a whole, spends annually on persons blind through ophthalmia neonatorum over one million dollars.

Using proportionate figures for our own state, we find that California spends annually more than \$32,000 in its crude attempt to bring some of the joy of living into the sightless orbs of these unfortunate one hundred and twenty

persons blind from ophthalmia neonatorum who live in our state.

Thirty-two thousand dollars annually spent by California in the care of blind persons, whose blindness and days of darkness and misery on earth are due to gonorrheal ophthalmia—a disease that can be prevented by one of the most simple of all medical or surgical procedures, but a disease which will not be prevented, as I am sure the succeeding essayist who will treat this phase of the subject will agree, until the medical profession, (you and I and our colleagues), develop an enlightened public opinion that will demand a place among our laws for a statute that will obligate all obstetricians and midwives to take those simple precautionary measures that will prevent all this annual loss of dollars and cents to our country; and which will render unnecessary the existence in hopeless darkness of so many of our unfortunate fellow beings!

Bradbury Building.

At a regular meeting of the Los Angeles County Medical Association, held on March 5, 1909, the following resolutions were introduced and adopted unanimously by the Association:

"WHEREAS, Ophthalmia Neonatorum, preventable disease, is the cause of about one-tenth of all blindness;

"AND WHEREAS, This unnecessary blindness means untold misery to several thousand persons of our country, as well as an annual expenditure of almost one million dollars in the care of those unfortunate persons;

"NOW THEREFORE BE IT RESOLVED, That it is the sense of the Los Angeles County Medical Association, that all members of the Association be urged to spread the knowledge of the great value of the Crede method of silver nitrate instillation as a preventive of ophthalmia neonatorum, and that all practitioners and midwives should use this method in obstetric practice;

"AND BE IT FURTHER RESOLVED, That this Association request the California State Board of Health to make the prevention of ophthalmia neonatorum a matter of special consideration and action, and that a copy of this resolution be sent to that Board, and copies be sent for publication to the Bulletin of this Association, to the SOUTHERN CALIFORNIA PRACTITIONER, and to the *Journal* of the Medical Society of the State of California."

OPHTHALMIA NEONATORUM—COMPLICATIONS AND TREATMENT.

BY F. D. BULLARD, A.M., M.D., INSTRUCTOR IN OPHTHALMOLOGY, LOS ANGELES DEPARTMENT, COLLEGE OF MEDICINE, UNIVERSITY OF CALIFORNIA.

The conjunctiva is a sac of mucous membrane closely attached to the lids and to the limbus, loosely to that part of the bulb which is back of the sclero-corneal margin, and in folds in the fornix. It has a double blood supply—posterior conjunctival and anterior ciliary arteries, the latter giving off one set of branches which form the vascular loops surrounding the cornea and

supplying it with nourishment; an another set passing back from the limbus and anastomosing with the posterior conjunctival vessels. In simple inflammations the posterior vessels alone are congested, but in all seven forms of conjunctivitis, both systems, on account of this anastomosis, are engorged with blood.

In infected infants after a very short

incubation, from the second to the fourth day, there appears a slight redness, and a trifling discharge from the cornea of the eye. This is usually attributed to the glare of the light. This insignificant watering is soon followed by pronounced symptoms, marked redness of the lids, and great swelling so that they cannot be voluntarily opened, and are even separated with difficulty. There may be chemosis, causing the conjunctiva to swell up around the limbus so that the cornea is seen down in a well. The discharge, which is serous and bloody for a day or so, becomes profuse and creamy, escaping continually from between the lids. Later the swelling becomes less and the lids hard.

When once established the disease is very intractable, and requires persistent and well-timed management. Promptness, thoroughness, gentleness and cleanliness are the essentials; every detail must be carried out with patient watchfulness, the patient being frequently seen by the physician. When one remembers that of those affected with this terrible disease, one in ten lose one or both eyes, and one in four have a more or less severe involvement of the cornea, the gravity of this malady can be appreciated.

The imminent and altogether too frequent complications and sequels are: Corneal ulcers leaving unsightly, incurable, and often obliterating scars (leucoma), perforation with resulting adhesions of the iris (anterior synechia), weakening and bulging forward of a white scarred cornea, the ugliest of deformities (anterior staphyloma), collapse and atrophy of the eyeball, and general infection of the eye causing its total loss (panophthalmitis). All these destructive and unsightly complications arise from ulceration of the cornea, hence treatment is directed against that frequent and dangerous complication. Ulceration is brought about by pressure strangulation, wounding, and direct in-

fection from the continued bathing in a virulent fluid.

By the pressure of the heavy eyelids and the ring of chemotic infiltration about the limbus, the nutrition of the cornea is interfered with and its vitality thus lowered. Even the presence of the irritating gonorrheal secretions may etch the crystal-like cornea. Hence remove the morbid secretions early and frequently, relieve the abnormal weight by canthotomy and the strangulation by scarification if needed, and use if possible such chemical agents as will inhibit the growth of the cocci, and at the same time not destroy the all important external layer of the cornea.

First of all, use gentleness, draw the upper lid away from the globe by the fingers or by pressing upon the orbital ridge. If one uses a retractor great care must be exercised not to touch the cornea. Then irrigate with a selected solution such as a scruple of boracic acid and biborate of soda to a five-ounce mixture of a one to ten thousandth bichloride of mercury solution. This irrigation should be warm, temperature 104 F.

With a medicine dropper attached to a fountain syringe (the bottom of which is only three inches above the child's head) direct the stream upwards toward the cul de sac, holding the nozzle about one-half an inch from the eye. The child's head must be firmly held in the recumbent position, so that neither the instrument nor the stream be dashed upon the cornea. This irrigation should be thorough, yet gentle, the stream being directed first into the upper and then the lower cul de sac.

If the lids are turned, or cotton applications made to remove membranes or secretions, or to apply silver solutions, this manipulation must be done by the physician, and the greatest care must be exercised not to abrade the cornea.

After cleansing the eye the instillation of a 25% solution of argyrol is

to be recommended, the child's chin being held higher than the forehead. In all manipulations upon the eye the other should be protected. After cleansing and instillation the lid edge should be protected by being smeared with vaseline from a sterilized tube. The above irrigation should be repeated every hour or two according to the severity of the case. If more frequent cleansing is required, it is well to use warm normal salt solution.

Nitrate of silver (2 to 4%, and in severe cases even much stronger) should be applied once a day, the excess being washed away with salt solution. The lids should be gently turned, and dried, and the applications made by a small cotton swab.

Should the cornea become hazy, dull or lusterless, as seen in its well of folded and infiltrated conjunctiva, the instillation of a drop of a 1% solution of atropine sulphate is indicated, and hot light compresses (temperature 115° F.) are called for. Before using these the lids should be protected by vaseline. These compresses should be frequently renewed for twenty minutes and applied every two hours. Cold compresses should hardly ever be used in children, and then only in the early stages, and with great care, for cold lowers the vitality of the cornea.

The application of nitrate of silver is most valuable, indeed, imperative in most cases in the purulent stage, but it is a difficult procedure to safely carry out, for injury to the cornea is very easily done in exerting the lids or applying swabs. The non-expert had better stick to irrigation, argyrol and hot applications. But nowhere in the treatment of eye troubles is there greater need of the specialist than in the treatment of a bad case of ophthalmia neonatorum, and nowhere on account of the usual social standing of the victims is proper nursing and medical management more difficult to obtain.

All dressings should be burned, the well eye protected, and the most rigid asepsis carried out by the physician, nurse, mother and attendants, for this disease is not only virulent, but in the acute stage, violently infective.

Many authorities recommend the acetate of silver instead of the nitrate, as it will not dissolve stronger than 1:2 to 100, thus precluding too strong a solution, and again if silver is set free the acetic acid thus liberated is less irritant than the nitric under the same circumstances.

The treatment of the other complications do not properly come under general medicine, and I will not discuss them here.

Bradbury Building.

THE PROPHYLAXIS OF OPHTHALMIA NEONATORUM.*

BY E. M. LAZARD, M.D., LOS ANGELES, CAL., INSTRUCTOR IN OBSTETRICS, LOS ANGELES DEPARTMENT, COLLEGE OF MEDICINE, UNIVERSITY OF CALIFORNIA.

It would seem almost superfluous at this day to describe and urge the use of proper prophylactic measures against ophthalmia neonatorum. It is now twenty-eight years since Crede described his method of treatment of the eyes of the new born, which was so successful as to reduce the percentage of children affected with this most destructive of

eye inflammations, from 10.8% to 0.1 or 0.2%. This last percentage is so small as to leave a reasonable doubt in one's mind as to whether the children who developed the ophthalmia had the benefit of the proper prophylactic treatment. A procedure which is so simple, so inexpensive, so barren of unpleasant reactions and, withal, so rich

*Read before the Los Angeles County Medical Association, March 5, 1909.

in saving of eyes to the individuals, and the individuals to the community, should need no advocate to urge its adoption by everyone who has the care of the parturient woman and her newborn child.

Crede's method consists of dropping one drop of a two-per-cent. silver nitrate solution onto the cornea of each eye. The solution is dropped from a glass rod so as to be sure not to get more than one drop in each eye, care being taken not to touch the cornea with the rod.

Occasionally this procedure has been followed by a silver conjunctivitis which runs a mild course. This unpleasantness may be obviated by washing the eyes out a moment later with a normal salt solution, which would neutralize the remaining silver.

Since the introduction of Crede's method, numerous modifications have from time to time been advocated, such as use of carbolic solutions, bichloride solutions of varying strengths, sterilized water, iodide trichloride, 10% protargol, argyrol, etc., but none of them have given such uniformly good results as has the method of Crede. In a series of 24,724 births in which this procedure was used by twenty-five different observers, there was an average percentage of 0.6% of cases of ophthalmia developed. No other method approaches this result, and it leaves little to be desired as a preventive. With such a record, there seems to me to be no reason for searching for a better one, but our efforts should be directed toward obtaining concerted action for the systematic carrying out of the Crede's method.

In cases where the mother is known to be suffering with gonorrhoea, or where she has a more or less profuse vaginal discharge, a preliminary course of antiseptic treatment should be instituted. Edgar advises in these cases, alkaline douches followed by 1:5000

bichloride, daily or twice a day, beginning about two weeks before term. Then just before labor there should be some lubricating douche to take the place of the normal lubricating mucus which has been washed away by the douching. For this purpose a one per cent. lysol douche can be used.

As the infection in cases of ophthalmia, probably occurs after the delivery of the head, much can be done to lessen the danger of infection by proper care of this part of the labor. By supporting the head after its delivery and preventing the face from bathing itself in the discharges and secretions, the chief source of contamination can be eliminated. Right here, I would like to say a word against the common practice as taught most trained nurses, of wiping the baby's eyes with a piece of gauze saturated in boric solution as soon after the delivery of the head as she can. If this is done as soon as external rotation has taken place, she interferes with the proper completion of the delivery, and as the shoulders are as often the cause of tears of the perineum as is the head, I believe as much care should be given to the protection of the perineum during their delivery as during the delivery of the head. More than that, I believe that there is more danger of infecting the eyes by wiping infectious secretions into them at this stage than there is likelihood of avoiding it by this procedure. It is far better to wait until the cord is cut, and the child is removed from the mother before any attention is given to the eyes. The eyes can then be carefully washed with boric solution, and after the mother has been made comfortable is plenty of time for the introduction of the silver into the baby's eyes.

If it is granted that the Crede method is practically a positive prophylactic against ophthalmia neonatorum, and the records show that it is fully as efficacious as any of the so-called spe-

cifics, should it be made a matter of routine and should there be laws passed, making it mandatory in all cases? Gonorrhoea is no respecter of persons, and the occurrence of pus tubes in the wives of the wealthy and of the society elite as well as in the women of the middle and lower strata of society, is proof enough that there is as real danger to the eyes of the offsprings of the former as to those of the latter. The objections of the routine Crede treatment are that it may be slightly painful to the child, it may cause a slight conjunctivitis in a child who otherwise would have had no trouble, and lastly it may give rise to offense by the unuttered accusation against the parents of having gonorrhoea. As to the first two objections, they hardly are worthy of consideration as the pain of the instillation is not very great and, at worst, only lasts a few moments, and the silver conjunctivitis is of rare occurrence and mild in character. If by the routine practice of Crede method in one hundred or two hundred cases, we could prevent the occurrence of ophthalmia in all, even at the expense of some pain and a mild conjunctivitis in each, and thus save only one of the two hundred from developing ophthalmia, who would have otherwise developed it, we would be more than repaid for all the trouble and for the sum total of suffering we have caused the one hundred and ninety-nine by the suffering we have saved the one. In addition to which we would save the community the expense of a useless member of society as a result of blindness. As to the last objection, who would consider the feelings of the parents where the possibility of blindness to the child was in question? Furthermore, if we practice it as a routine, the indictment is not against the individual parents in question, but rather against our present day so-called civilization and social prac-

tices. If, on the other hand, we practice it only in selected cases, we point the accusing finger, rightly or wrongly, against the individual parents. And after all, the parents need not know the object of the treatment. All they need know is that eye drops have been put into the baby's eyes to prevent irritation from the secretions of the vagina. I have never known a case, where trouble was caused in a family by taking this preventive measure. From a consideration of the foregoing, I believe it our duty to observe this precaution, as a routine in all cases, in the palatial homes of the wealthy as well as in the hovels of the proletariat. I hope to see the time come when every practitioner will as religiously follow this technique as all now observe proper asepsis in the conduct of the labor; and the time when the occurrence of a case of ophthalmia in one's practice will be considered even more of a reproach and evidence of neglect than is the occurrence of puerperal infection today. Whenever that day comes, there will be as little need of laws requiring the competent practitioner to observe this precaution as there is need of laws today requiring him to be surgically clean in the conduct of his cases.

In public institutions, the law should demand that these wards of the public should be prevented from becoming public charges, and in all such cases this procedure should be mandatory.

There is still a considerable portion of the obstetrical work done by midwives and other persons more or less incompetent. In such cases, I don't believe any law which could be passed would be efficient in protecting these ignorant people against their own foolishness. The law should, however, demand that anyone who has its protection and license to practice any branch of medicine or surgery, should be competent.

While it seems impossible to enforce

an observance of this prophylaxis in this class of cases, laws should be passed requiring every parent to place his child under a competent physician's care immediately on the appearance of any inflammation or pus in the baby's eyes, in order that the baby may have the benefit of proper treatment as early as possible. If no physician be in attendance, or the patients unable or unwilling to employ one, it should be obligatory on them to report it to the health office. But you will say, how will these people know of the existence of the law and thus be able to abide by it? In answer, I would say that they would learn of it just as quickly as they now do of other laws regulating domestic hygiene. In fact, with the aid of the bulletins issued by the health office, they could be educated so that

they would become alarmed at the first evidence of trouble and would, of their own accord, get proper attention.

As has been well said, by Prof. Dimmer, "Purulent Ophthalmia of infancy can, and must be wiped out of every civilized country," but it can be done only by agitation within the profession, until an "anti-blenorrhoeic" conscience has been developed in each practitioner just as now each one possesses an "antiseptic" conscience. Just as the lay world today knows of the necessity of surgical cleanliness, so it will learn of the necessity of proper care of the eyes of the new born, and, not only allow it, but demand that it be done. Then will gonorrhoea be robbed of one of its inflections on the innocent and as a cause of lifelong blindness, be entirely eliminated.

Lissner Building.

A GLANCE AT THE PAST AND A GLIMPSE OF THE FUTURE.*

BY E. S. GODFREY, JR., M.D., PHOENIX, ARIZONA.

The fallacious conclusion "*Post hoc ergo propter hoc*," has brought more undeserved criticism upon the medical profession; has brought it more undeserved credit; has been the means of establishing more sects, quacks, nostrums, drugs, patent medicines and appliances than perhaps any other single dictum. The mistakings of sequences for consequences marks and mars the painful path from amulets and newt eyes to antitoxin and modern sanitation; from incantations to modern surgery. Nearly three-quarters of a century ago Oliver Wendell Holmes brought down upon his head the wrath of thousands by saying that "if all the drugs in the world, with a few very important exceptions, were thrown into the sea, it would be so much the better

for humanity and so much worse for the fishes."

Today it is generally acknowledged that but few of the drugs which are so carefully described in our text-books, are of real efficacy and practical value. And yet they continue to be described and we continue to prescribe them with what I cannot but feel to be a detriment to the public, and possibly to ourselves as well. Not that these drugs or their preparations are essentially harmful in themselves, for I think that in that way they do very little besides lighten the patient's pocket. But I do think that the almost universal prescribing of drugs has a distinct tendency towards minimizing the real forces that are engaged in bringing about recovery. To my mind the successes of homeopathy

*The Annual Essay—Read before the Arizona Medical Association, May 19, 1909.

(that is the real, genuine, high potency article) clearly demonstrated that people can and will get well without drugs, without thoughts, without the correction of intenuous subluxations, and with "mortal errors" in abundance. The credit has been largely given to infinitesimal doses of drugs—doses so small that it is impossible to demonstrate that they have any physiological action whatsoever—while the real forces of hygiene and the natural resistance of the animal body have been completely overshadowed.

The year does not pass but some new drug presents itself for our consideration with an array of testimonials behind it that is apt to lead even the wise astray. We have seen or heard of "cures" through the means of patent medicines; we have ourselves "cured" with placebos and with nostrums that have later proved to be the grossest frauds, and that, too, in cases where the disease was not imaginary. When placebos are prescribed, we usually know where to place the credit, but with nostrums, the drug gets the credit, temporarily at least.

And in this matter of nostrums it seems to me that some of the criticisms are wrongly pointed. The National Pure Foods and Drugs Act practically insures that drugs and their compounds shall be true to label; so that today misbranding is not the serious thing that it was a few years since. However, this act, and the decisions made under its authority, require that certain drugs only must be named, with the quantity or proportion present. Hence numerous nostrum makers have sent out products containing none of these drugs or their derivatives, have given them names that sound as though they mean something and have claimed for them all that they are entitled to, to say the least. Protests have been made against these. One writer, who I think voices the opinion of many, insists that we should not use

any preparation that does not bear a label stating in full the contents and the exact quantity in which they are present. But it really looks as though one should go a step further and say that before a physician prescribes a preparation bearing a complete label, he should know the physiological action and the therapeutics of that preparation. If a mixture he should have a clear idea of what he should expect from it, and know why the different drugs are used. In the common Aloin, Strychnin and Belladonna pill, for example, there is no one but can give the reason for each constituent. Now look over the formulae of some of our large pharmaceutical houses and see what they put into their preparations. After one or two really active ingredients, there usually follows a list of "herbs" that have been discarded for decades, all "combined with aromatics to make a pleasing and palatable mixture."

We have these "elegant" preparations handed to us by the dozens and they are prescribed on the say-so of an interested somebody that they are "good for" this or that. Some of them, we are told, are *de luxe* preparations of what may be found in the Pharmacopeia or the National Formulary; many of them are found in the list of New and Non-official Remedies. None of these constitutes in itself a warrant for their use. One of the best men in this country on pharmacy and therapeutics has said that he would like to see a clear statement of the physiological action of the glycerophosphates—and there is many another who "rides in the same boat." If we have an understanding of a drug and have good reasons for believing that it possesses the properties that we desire to utilize, all well and good—prescribe it whether it is in the pharmacopeia or out of it. But do not prescribe it ignorantly, nor carelessly nor unnecessarily.

When is prescribing necessary? Many

and varied answers might be given to that question, but it may be said "Only when the administration of the drug will be of decided and distinct advantage to the patient." The psychasthenic may need drugs, though I incline to the belief that he generally does not, and that in the long run he will be better off without them. Searching for and removing the organic cause if it can be found, and proper mental and physical hygiene will bring the best results. Cases of this kind, however, are usually treated without drugs in this day, and it is of another class of diseases that I wish to speak more particularly. These are the infectious diseases of which typhoid fever and pneumonia are shining examples. The vast majority of cases of these diseases are subjected to an unnecessary drugging that beclouds the hygiene of the patient and of the sickroom, reduces the patient's chances of recovery, and favors the spread of the infection. We know that these diseases are usually self-limited as to time and that our main duty is to advise as to the patient's hygiene (rest, fresh air, bathing, diet and the disinfection of excreta) and to everlastingly keep our eyes and ears open. There can be no objection to symptomatic treatment so long as the symptoms are such as to warrant it. No sane physician denies that an important function of medicine is the relief of suffering. But we should not go out of our way to find symptoms to treat in order that we may be giving something. We thus encourage in the patient's mind the belief that it is this that makes our services worth money. We must remember that advice, while practical, is abstract; that a drug is concrete and apt to be considered by the patient the most important part of the treatment. We may tell them otherwise, but if we look back over our cases we will find that the drug is the part of the treatment least frequently neglected. In one disease alone do I think that we

have made material advance in this direction. That disease is tuberculosis. Through the widespread discussion of its prevention and treatment the laity and profession both are being brought to a realization of the comparative futility of drugs and the transcendent importance of hygiene in its management. It is my belief that what has been done in tuberculosis may be done with profit in other diseases. It will be done in much the same way—by instruction of the public, so that they will not necessarily expect a prescription when they consult a physician; so that they will learn that "drug" and "medicine" are not synonymous. Many a physician to-day is compelled by the exigencies of practice to do what he knows is unnecessary or wrong, simply because to do only what is necessary and right means chancing a loss. As Bernard Shaw says "he is as honest as he can afford to be."

The fault for this state of things, this lack of knowledge on the part of the public, lies with the medical profession and with it alone. In bygone centuries, secrecy may have been a necessity in order to keep the public from finding out how little the physicians or priests of the day really knew, and to magnify that little, by the power of mysticism, into something beyond the ken of common folk. Today no such reason exists. Our profession is quite as far advanced as are most of the others. We can acknowledge with grace that we do not know it all, and we can say with truth that neither does anyone else. Our practice changes; what today appears a truth, tomorrow may prove false. But so do laws and their interpretations change; so does business practice change; so is there change in every trade and profession that is concerned in the welfare, the happiness of humanity.

Look back a few centuries and see what lack of progress means. See the

dense ignorance of the masses in the dark ages, when everything was taught from books written centuries before; when learning was practically confined to the priesthood; when to think independently and aloud meant persecution, torture, mayhap death for the hardy soul that dared. See in them the results of stagnation and deeper still see the reason in the absence of free discussion with the public. Discussion cannot be replaced by dogma. Mere conclusions cannot take the place of evidence and argument. And yet, to my mind, that is what the medical profession has, until very recently, sought to do; not consciously, perhaps, but clearly having that effect. The greatest forces for education today are the public school and the public press. The former we have used only to a tithe of the extent that is possible. The ordinary course in school hygiene still contains too many sentimental platitudes on the evils of alcohol and tobacco; too many trite observations on the beauties of health without practical instruction in how to preserve it. The newspapers have for years carried in their advertising columns an amount of medical misinformation that is appalling, and it is today the more egregious wrong in that it appeals only to those most ignorant, those least able to bear the cost. They tell the public in every issue that a backache means "kidney trouble," and that "every lump in a woman's breast means cancer," and they prescribe cures that are needless, worthless or harmful. The dollars that they receive for space are dollars taken from the poorest and weakest in their communities; they are dollars out of many dollars that go to build summer palaces on the St. Lawrence.

The papers alone are not to blame. We have ourselves to consider. We must ask ourselves whether or not we have done our share to prevent this exploitation. Have we made it easier

for papers to get reliable information on medical subjects? Have we not, through a misinterpretation of a clause in our code of ethics or through a fear that our motives may be misconstrued, refrained from "rushing into print" and allowed the general public to wend its way in an ignorance that is far from blissful? I cannot but think that the answer is a qualified "yes."

The fight against disease is only in the misty dawn. A definite outline of the plan of campaign cannot yet be discerned. But this much I believe can be safely stated: That it will not be so much along the lines of punitive measures of repression as by education and persuasion. The former will have their place, it is true, and the public health departments of the cities, the states and the nation will steadily increase in importance. But I look to see quarantine largely disappear; to see the money that now goes for guards and for necessities for those who are by quarantine prohibited from earning their living, be put into channels more productive of good. To establish laboratories, to pay for inspectors of school children, dairies, of establishments producing food stuffs of any kind, to oversee the disposal of city wastes, to examine the places where people live and work.

To diverge for the moment, I wish to speak upon this subject of public health more particularly and especially as it concerns our Territory. In having secured the enactment of the vital statistics law by the last Legislature, this association and the profession as a whole, has only begun on needed legislation. The Public Health Act of the Territory was taken almost verbatim from the North Dakota laws. So far as its make-up goes our Territorial Board of Health is unique. Even in North Dakota two doctors and the Attorney-General compose the board. While this may have been well enough at the time that it was enacted, yet to-

day it is a distinct drawback. Problems of sanitation are problems in every sense of the word. The disposal of sewage and garbage, and other city wastes, the housing problem, the inspection of dairies and slaughter-houses, the eradication of insects and their carriers, the control of communicable diseases, each of these may confront the local health officer in his work. To aid him in finding the solution of these questions he should, I think, have a State Board of Health to appeal to—not a board made up as at present of two laymen and a doctor, but one constituted of five or more from among the very best that the medical profession affords. Even in New York and Pennsylvania where the power is very highly centralized, the Commissioners of Health have as their advisors men who are technically trained and capable.

Our problems are not as serious as theirs, and yet they will grow increasingly serious as the years roll on and the inevitable increase in our population comes. By taking these matters in hand at the beginning they will at least be kept within easy control and the enormous expenditures which the more thickly settled States must face, will never confront us. They have allowed menaces to the public health to become vested rights and no one needs to be told the difficulties of such a situation. It also appears not unreasonable to give such a board power to interfere within a county or municipality where the neglect of local officers makes this necessary. Cases of this kind are almost sure to occur so long as the public is indifferent to its health, so little understands what disease prevention means, and is so complaisant in the selection of its health officers.

But one of the most important channels through which the public health will be improved is higher standards of medical education. To quote from a recent article by President Pritchett of

the Carnegie Foundation for Teaching: "The practice of medicine and of the law is overrun today by a horde of those seeking to earn in these callings a means of living, who, under a more just system of educational standards, would be rendering to their communities a real service in some productive calling. It should be borne in mind that neither of these professions contributes to the productive wealth of society, and a man is of value to the world in them only when his ability is such that he contributes something over and above the amount of his fees. There are to-day more men in both these professions than the country needs, and yet there are certainly, in the judgment of competent medical authorities, not enough competent medical practitioners to do the work of the country. Omitting for the time the dishonest quack and the unscrupulous attorney, it is still true that a large proportion of those in these professions ought to be earning a living in other callings where they would render a return to society by contributing to the productive energy of the world. The evils of the present overproduction of ill-trained physicians and lawyers is perhaps more strikingly manifest in the small towns than elsewhere. In almost any town of five hundred families one can find a half-dozen physicians and as many lawyers struggling for a living, when at the most two competent men in each profession could do the work of the community. Lawyers under such conditions spend their time in the exploitation of petty causes, or in efforts to secure office. Physicians in such circumstances minister in large measure to chronic invalids, while the great cause of right sanitation and public health of the community is left absolutely untouched. Low educational standards not only are an injustice to the public on its own account, they are absolutely demoralizing to the profession itself. They serve to lay in the path

of ill-trained and weak men temptations for which they are wholly unprepared and the fruits of this mistake the public reaps."

Improvement will come through an understanding by the layman, that "medicine" may mean "advice" and nothing more, through the more extended use of hospitals and better nursing; through authoritative articles in the public press; through the lecture platform and the common sense teaching of hygiene and sanitation in the public schools. Our goal will not be reached in a day, nor yet in a generation. The profession must yet learn not to con-

demn utterly and without a hearing each new "school" that appears, and it must yet learn not to look upon restrictive medical laws as something for their especial benefit, but as a protection to the public purely and simply. The public must likewise learn that the particular sect to which they give their allegiance, does not contain all that is good, and that restrictive medical laws are promoted, not in the interests of monopoly, but in the interest of efficiency. Both must come to a more practical realization of that time-worn adage that "An ounce of prevention is worth a pound of cure."

UNITED STATES CAMP OF INSTRUCTION FOR NATIONAL GUARD MEDICAL OFFICERS, PRESIDIO OF SAN FRANCISCO, JULY 29 TO AUGUST 11, 1909.

BY C. W. DECKER, M.D., LOS ANGELES, FIRST LIEUTENANT MEDICAL CORPS, NATIONAL
GUARD OF CALIFORNIA.

"Knowledge is power," might well read, medical knowledge is military power, so important has prevention of disease among armies become. Recent enactments of Congress have put the National Guard of the various States in line with the regular army for defense in time of war.

To instruct National Guard medical officers in military medicine three camps of instruction were established this summer. One was at Antietam, one at Sparta, Wisconsin, and the third at San Francisco. One hundred and seventy-four Guardsmen were scheduled to attend these schools.

Major Albert E. Truby, Med. Corps, U. S. A., commanded the camp at San Francisco. In attendance were medical men from the Guard of Colorado, California, Utah, Montana and Wyoming. Under the direction of Major Truby,

ably seconded by his Adjutant, Capt. James L. Bevans, Med. Corps, U. S. A., a vigorous programme was mapped out.

Pitched on the southern slope of the Presidio Heights back of the U. S. Marine Hospital, were thirty-one large tents of a model Field Hospital complete to the minutest detail. A Field Hospital accompanies a brigade, 6500 men, and is divided into two commands, a Hospital Section and an Ambulance Company Section. The Hospital Section, under Capt. Robert L. Carswell, Med. Corps, U. S. A., with Lieut. Robert W. Kerr, Med. Corps, U. S. A., and thirty-six enlisted men, had charge of the hospital and cared for all patients delivered to them.

Transportation of wounded is an important part of the duties of the Medical Corps. While the Geneva Convention insures wounded soldiers proper

care when they fall into the hands of an enemy, it does not prevent their becoming prisoners of war. The Ambulance Company Section of sixty-nine men, with ten ambulances, two escort wagons, four pack mules, and four travois, was commanded by Capt. Herbert G. Shaw, Med. Corps, U. S. A. He had with him Lieuts. Daniel P. Card and William S. Shields, recent graduates of the Army Medical School, Washington, D. C. A model regimental was maintained under the charge of Capt. William A. Wickline, Med. Corps, U. S. A.

Much of the time in camp was spent in working out medical battle problems. At first all positions were commanded by officers of the regular establishment, Guard officers being detailed as observers. As we learned something of the work, positions were reversed. Guardsmen in charge of first aid stations, on the firing, at the ambulance station, and in command of the Field Hospital demonstrated their understanding of the previous day's lessons. Officers commanding troops stationed at the Presidio kindly furnished troops for these battle problems, so men were available for testing the ability of the Field Hospital organization to care for a large number of injured and quickly transport them to the hospital located safely some miles from the firing line.

On alternate afternoons, from 1 to 4, lectures upon military paper work and administration by Major Joseph E. Ford, Med. Corps, U. S. A., and military hygiene and sanitation by Major Arthur W. Morse, Med. Corps, U. S. A., occupied our time. The great number of papers required by our government to keep the exact record of all its military affairs at first overwhelms. Fifty different papers and blank forms were studied, from a simple "Information Slip," stating that an enlisted man had overstayed his leave of absence, to the elaborate "Invoice of Field Medical

Supplies" form, on which thousands of dollars' worth of supplies may be requisitioned or receipted for.

The lectures upon hygiene and sanitation were supplemented by practical illustration of recent apparatus for purification of water or disposal of sewage. A Forbes sterilizer and Darnall filter furnished water for use in camp. The recent inventions for incineration of sewage were examined. The consensus of opinion among officers of the army being that, while such apparatus works beautifully at a permanent post, its weight, bulk, and complications render its use in active campaigning impracticable. Absolute prevention of access of flies to all body excreta must be our safeguard against typhoid, dysentery and other filth disease.

The evenings were devoted to a formal discussion of the morning's problem, followed by informal exchange of ideas upon many medical subjects. These informal discussions were enriched by experiences gained in many parts of the world in army medical service, and often proved the most enjoyable part of the day's programme.

A visit to the Presidio General Hospital occupied one forenoon. Major Kennedy, Med. Corps, U. S. A., extended us every courtesy, personally conducting us through the large hospital and pointing out the complete equipment for research work. Many interesting and rare tropical diseases can be found here, and it would be an ideal place in which to study tropical medicine. The laboratory of Dr. Rupert Blue, U. S., P. H. and M. H. S., was a mine of medical knowledge regarding plague. Thousands of rats and ground-squirrels are dissected monthly. Plague among ground-squirrels makes the utmost vigilance necessary if we are to eradicate this disease. Every physician going to San Francisco should visit this laboratory and learn the magnitude

of the work Dr. Blue and his assistants are doing for our State.

A Medical Camp of Instruction was an innovation. Its benefits were so appreciated by all officers present that we trust our government may often call its medical men together for study. Not

the least of the benefits of such camps is the development of a spirit of comradery between the Guard and the Regular Establishment by which unity of purpose and efficiency in action are made possible.

Sixteenth and Georgia Streets.

THE PHYSICIAN AND HIS DUTY TO HIMSELF.*

BY E. B. KETCHERSIDE, M.D., YUMA, ARIZONA.

We first want to learn what a physician should be. Shall we judge by the physician of today as a whole? I am sorry to say we cannot, for many men are called physicians who would disgrace any profession, being utterly devoid of principles and morals; always ready and willing to do anything for money or notoriety.

How, then, shall we ascertain what he should be? By learning what his profession demands of him. We know his to be the highest calling that man can aspire to, for it deals with the lives, health and happiness of the human family.

It is the physician who helps us into the world, (and I almost said, helps us out,) and is with us until we pass out. He is first to welcome us when we arrive, and the last to bid us farewell when we depart.

He is taken into the confidence of the family, and entrusted with its secrets. He has great influence in the community in which he lives.

These things being true, we can readily see what a physician should be. First, we would say, he should be born, for physicians are born, not made.

Born with a desire and love for the profession, with physical powers, tact, and plenty of horse sense. These attributes are absolutely necessary for a successful career.

He must have a good literary and medical education. A great deal has been said about the educational qualifications of the physician. To this I do not object. He should gain all the knowledge he can. He must learn, however, that he might have all the knowledge he could possibly gain, and still not be a successful practitioner. Knowledge only enables him to do what others have taught him. Knowledge of the medical science is a good thing, but is worthless, or even dangerous, without wisdom to properly apply it. Wisdom is that attribute of the mind which enables him to rightly apply his knowledge under any existing circumstances. It cannot be gained from others. It can be acquired only by one's own efforts.

Wisdom enables him to discriminate between diseases that are very much alike, yet differ. This is one of the most important things with the physician.

His adaptability and moral qualifica-

*Read before the Arizona Medical Association, May 19, 1909.

tions should not be overlooked, as they are fully as important as his educational qualifications.

Our examining boards should not admit an applicant to examination unless he is a gentleman in every respect.

When we see how closely he is connected with the people for whom he practices, we know how necessary it is for him to be a model man, one to whom the young men can look as an example. He should be free from vices, and vicious habits, such as the use of drugs, whisky and tobacco, for each and all of these weaken his physical and mental powers, and destroy his moral sensibility and his influence for good.

I wish now to say a few words in regard to the duty of the physician to himself. After his graduation he should examine himself to see how little he knows. This he can easily do the first patients he has. He will find he is now only prepared to study medicine in reality, and will soon find he must be a student the remainder of his days if he wishes to be successful.

His next duty to himself is to marry a good woman that will be a wife for him and a mother for his children. (Not a politician and club woman.) A

wife that is truly a wife is worth more to a physician than anything else he can possess. She will welcome him home when he returns from his duties, tired and careworn, make his home a paradise, and his homecoming a great joy. Another duty is to raise a large family, (say one dozen children). They keep him from growing selfish, and keep him young by bringing new life into his home. He will feel that his labors are not in vain, and he will have some one to care for him when he is old.

Another duty to himself is to impress his patrons with the fact that he, too, is flesh and blood, and must have rest and recreation as well as they.

Still another duty is to care for his health as much as possible, keeping free from habits that would impair his mind or body. He must keep himself neat and clean and conduct himself so as to merit the esteem and confidence of his patrons.

Another very important duty to himself is, after he has served his patrons with his best skill and ability, to demand his pay, so he may have a comfortable home to retire to when he is old.

THE GASTROSCOPE.*

BY H. H. SOUTTAR, B. M., B. PH. (OXON), LONDON HOSPITAL.

It is now nearly three years since we first attempted the problem of gastroscopy. For the first twelve months we worked in the dark—literally, for no ray of light ever reached us through the primitive contrivances which we hoped would one day develop into gastroscopes. At the end of that time we were rewarded, and saw the gastric mucous membrane for the first time.

And yet those early tentative experiments were, I think, well directed, and taught us much of the anatomical and mechanical difficulties which we had to face. I therefore make no apology for describing to you the method we pursued. We considered it axiomatic that a gastroscope must consist of a series of jointed segments, so constructed that during passage it should be flexible, but

*Delivered at the British Medical Association Conference, Belfast, Ireland, July 30, 1909.

that when in position the segments could be locked into a rigid tube. In this we were wrong, as I shall show later, but I still think that this was the best and safest way in which to attack the problem. Experiments on the cadaver proved futile; the stiff jaw, the rigid spine, and the flaccid œsophagus made the passage of instruments difficult and results misleading. We therefore had to be content with mere measurements from the cadaver and to carry out our actual experiments on the living. This, of course, meant that we had to proceed by very short steps and with scrupulous care, taking every precaution that consideration could devise. Two questions met us at the outset. "What is the normal form of the œsophagus?" and "To what extent can it be straightened?" To answer these we passed metal-lined bougies and examined their shadow on a fluorescent screen by means of X-rays, the patient meanwhile bending his back and moving his head in various directions. We then constructed a metal bougie cased in rubber, and made of several short segments of metal tube so connected together that the whole formed a flexible rod which could, after introduction, be rendered rigidly straight. We found that this bougie could be passed and straightened when in situ without inconvenience to the patient. In order to make absolutely certain of this very important point we first tried the experiment upon ourselves. It was then clear that the œsophagus would tolerate a straight rod reaching from the fauces to the cardiac orifice of the stomach, and of 15 millimetres in diameter, and this, in spite of the intimate relation of the œsophagus to the heart and other important viscera. Beyond the cardiac orifice such a straight rod cannot be carried, for it will impinge directly on the lower dorsal vertebrae, where their bodies form the lower portion of the dorsal concavity. The lower end of our instrument was therefore

bent forward at an angle of 30 degrees. The nose of the instrument was thus brought clear of the spine, and into the lumen of the distended stomach. At the upper end an oral portion was added at an angle of 30 degrees with the œsophageal limb. It thus projected conveniently from the mouth with the head in a natural position. Thus, with only two angles, we had laid down the outlines of a gastroscope which, when in position, would conform exactly to anatomical requirements and throw no undue strain on any structure. One other question remained. Could such an instrument be passed? At first sight, the forward tilt of the beak would seem to render its passage in such a perilous neighborhood a most dangerous proceeding. As a matter of fact, this lower angle is

THE SAFEGUARD OF THE INSTRUMENT.

When it is to be passed, the head and neck are brought well forward, and the dorsal concavity is thus accentuated, and its curve continued into the cervical region. The angular instrument will now fit snugly into this concavity, instead of lying across it, as would happen were it straight. As the instrument descends, the head and neck are allowed to fall back, and the dorsal curve is so far reduced that behind the straight middle portion of the instrument it is inconsiderable. As a matter of experience we have never had the slightest difficulty either in passing the instrument or returning it in position, and no ill effects from its use have been observed. The results I have thus briefly sketched were only obtained by laborious work, and after repeated failures. The technical difficulties of the instruments themselves were very great. Fortunately I was unable to make them entirely myself, but six complete instruments were made before we reached a practicable form. A seventh was made for us in Berlin, and an eighth I have again made myself embodying

certain technical improvements. The expenses have been very considerable, the Berlin instrument alone costs £60; and I most gratefully acknowledge the generous help we have received from the trustees of the London Hospital Medical College Research Fund. Without their aid our progress would have been very seriously hampered. This last instrument is much simpler than any of its predecessors, and I propose to briefly describe its construction. In the language of morphology, we may describe it as a tubular structure whose wall is formed of three layers—an outer protective, a middle supporting, and an inner transmitting layer. These layers remain distinct through the whole length of the instrument, and each must be described in turn. The outer layer consists of a moulded steel tube, and is in two portions united by a very substantial joint. The whole forms a sheath of very great strength and rigidity, absolutely water-tight, and effectively protecting the delicate mechanism it contains. The middle layer consists of two metal tubes coated with silk and introduced into the two portions of the outer sheath before these are united. These tubes carry at their ends the two mirrors which are necessary at the angles of the instrument. Their silk covering insulates them from the outer sheath, and thus a means is provided for carrying electric current to the lamp in the nose-pieces. The inner layer consists also of two tubes. These can rotate freely inside the middle layer, and, being provided with gear teeth, rotation can be transmitted by their means from the eye end of the instrument to the nose-piece. These internal rotating tubes surround the above-mentioned mirrors which thus lie within their cavity. The exact method by which the mirrors are supported in this difficult position is clearly shown in the diagrams. Into the details of the intricate optical problems involved I do

not propose to enter. I will merely point out that light from the stomach wall falling on the small window in the side of the nosepiece is reflected immediately by a mirror behind that window up the tube, and through a lens of very short focal length. This lens forms inside the tube a minute image of a very large field. The light from this image, after reflection at the mirrors at the two angles of the instrument and refraction at another lens, forms a small image near the eye end. This last image is examined by an eye-piece, and the net result is that a very large area of the stomach wall is seen at one time, and of about its natural size. Rotation of the nose-piece will make the window face in any direction. By rotation of the instrument as a whole the nose-piece can be deflected to either side of the stomach. Finally, by a combination of these two movements, the operator can sweep practically the whole inner surface of the stomach. In order to see the stomach wall, it is essential that the stomach should be inflated with air. This is done after the introduction of the instrument by pumping air in at the nozzle near the upper end. The air is conducted down the central cavity of the instrument, and emerges through a small aperture at the lower end covered by a rubber band.

THE METHOD OF USING THE GASTROSCOPE is as follows. The stomach is, if possible, empty, and shortly beforehand it is washed out by means of a tube. The patient is preferably under an anæsthetic lying on a flat table with a low pillow beneath the shoulders to assist in flattening the dorsal curve. The anæsthetist now props the mouth open with a Mason's gag, and lifts the head forward without any tilt at all. A full-sized bougie is now passed as a precaution, and after its withdrawal, the nose of the instrument is carefully guided into the pharynx by the finger. At the cricoid some resistance is always met

from tilting of the cartilage and from spasm of the upper end of the œsophagus. Gentle manipulation soon enables the instrument to pass, and it is now allowed to glide by its own weight down the œsophagus. Slight spasm is again met with at the cardiac orifice, and is useful as indicating the instant at which the nose enters the stomach. As the instrument glides down the head is gradually allowed to fall back again, thus avoiding undue strain as the œsophagus becomes occupied by the straight limb. The pump is now attached and the stomach inflated, whilst an assistant percusses out its lower border, and thus gauges the degree of dilatation. The light is now switched on, and the nose rotated and deflected till the whole mucous membrane has been systematically examined. Of course the passage of the instrument and its subsequent manipula-

tion are delicate proceedings, and demand a certain amount of manipulative skill, but not more than is required by a cystoscope. With reasonable care the proceeding is entirely devoid of danger. Dr. Thompson will tell you what we have already seen with our instruments. We have, however, aimed rather at perfecting the instrument than at examining cases. We felt that it was our first duty to place in the hands of the profession a reliable gastroscope, based on sound mechanical and anatomical principles, not easily deranged, and such that it could be used with confidence and success by anyone with ordinary skill and care. In this, I think, we have succeeded. Future experience will, I hope, suggest many improvements, but I do not think it will greatly modify the general lines of the gastroscope, which I have had the honor to bring before you today.

THE USE OF THE GASTROSCOPE.*

BY THEODORE THOMPSON, F.R.C.S., M.R.C.P., ASSISTANT PHYSICIAN TO THE LONDON HOSPITAL.

Before giving you an account of the results achieved by the use of our instrument, I feel I must express my thanks for the assistance afforded to us by the London Hospital Endowment Fund for Medical Research. The preparation of the very complicated instrument which Dr. Souttar has so clearly described not only demanded infinite patience and mechanical genius but was also extremely costly, and we have to thank this Endowment Fund of the London Hospital for coming to our aid in this matter. It can fairly be said that the introduction of the cystoscope produced almost a revolution in the treatment of genito urinary disease, and it was the success of workers in this field which led us to attempt the direct

inspection of the gastric mucous membrane without resort to laparotomy. The importance of this subject is shown by the multitude of workers who have devoted themselves to the early diagnosis of the graver disorders of the stomach. The result of their work has been to modify many of the data which were formerly relied upon for diagnosis, and the subject instead of becoming simpler has rather gained in complexity. The two common diseases of the stomach in which early diagnosis is imperative are carcinoma and ulcer, and in many cases the failure of the present methods of examination is notorious. In fact, the physician in an early case is often in doubt as to whether he is dealing with a malignant growth, an

*Delivered at the British Medical Association Conference, Belfast, Ireland, July 30, 1909.

ulcer, or merely a functional disorder of the gastric mucous membrane. The natural history of a gastric ulcer is still far from being definitely known, and there can be no doubt that our instrument will be of service in elucidating this point. The scars found in the stomachs of patients who have died of other diseases point to the fact that there is a natural cure of gastric ulcer. It will be our duty to see how far medical treatment can aid this natural process of cure and to endeavor to ascertain what conditions are unfavorable to the healing of an ulcer. In gastric carcinoma we have a form of new growth which for some time remains localized to the stomach, and could the condition be recognized early, surgical interference might lead to much more favorable results than are at present secured. In many cases the diagnosis is not made until a tumor can be palpated, and it is now known that when the disease has progressed thus far, the lymphatic glands almost invariably have become infected. Consequently it is imperative that carcinoma of the stomach should be diagnosed before the tumor becomes palpable. It was at one time thought that the chemical examination of the gastric juice would furnish a certain clue to the diagnosis of gastric disorders. Dr. Golding Bird first noticed that the secretion of HCl was greatly diminished or absent in many cases of carcinoma of the stomach. Recently, however, many cases of undoubted carcinoma of the stomach have been recorded in which the amount of HCl in the test meal was either normal in amount or actually increased, and it seems probable that the absence of HCl is due rather to the accompanying gastritis than to the carcinoma itself. Thus in an early case of carcinoma ventriculi observed some years ago by the authors HCl was absent when the patient was admitted to hospital, but under careful

treatment all symptoms disappeared and examination of the test meals gave a normal content of HCl . The case was thought to be one of gastritis, and was discharged apparently cured, only to return in three months' time with a large nodular liver. At post-mortem examination a small growth was found in the stomach with secondary deposits in the liver. Had we possessed a gastroscope at the time of his first admission a correct diagnosis would have almost certainly been made in time for successful operative interference. Moreover, the problem has become more complex since the work of Moore and Palmer, who have shown that carcinoma in parts of the body other than the stomach leads to a great diminution in the amount of HCl in the gastric juice. Consequently we must accept the conclusion of Von Jaksch and Garrod that "the presence or absence of free HCl in cases of carcinoma of the stomach is a symptom of doubtful import, and that it must be weighed in conjunction with the other circumstances of the case." In fact, it is probable that

THE EARLIEST INDICATIONS OF GASTRIC CANCER

at present known are really those of the gastritis excited by the presence of the new growth within the stomach, and therefore it is of the greatest importance to directly examine the interior of the stomach in all cases of persistent gastritis in adults, in order to determine whether the chronic inflammation is due to the irritation of a malignant growth. As regards chronic gastric ulcer, the claim of Riegel that there is always an increased secretion of HCl has been disputed by Lenhart, who finds that in chronic ulcer the amount of HCl is often deficient. Moreover, it has lately been shown that recurrent profuse haematemesis may occur without any chronic ulceration of the mucous membrane. The condition known as gastric

erosion or gastrostaxis is far from uncommon, and this addition to our knowledge has been gained by directly inspecting the mucous membrane of the stomach after laparotomy and incision of the organ. This brief review of our present methods of diagnosis of gastric diseases does, I think, show that if a practical method for inspecting the mucous membrane of the stomach is found, a great advance in the diagnosis and treatment of disorders of the stomach will be made. The results already attained by the use of our gastroscopy I have the honor to bring before you this morning. We have purposely, up to the present, refrained from examining the greatest possible number of cases, our aim having been to render the instrument as perfect as possible. Thus after an examination it was found that a slight alteration was advisable and a delay, often prolonged, had to occur before the next case could be examined. I would first draw your attention to the appearances which are presented by what we believe to be apparently healthy stomachs. The first appearance is that of a bright red reflex, very like that seen in ophthalmoscopic examination of the funous oculi. On carefully focussing with the eyepiece the folds of the gastric mucous membrane can be seen running transversely across the field. On the surface are numerous bright specks of light due to the reflexion of light from particles of mucus on the surface. In some cases vessels can be seen as dark lines coursing over the field, and at times branching. A striking feature is the appearance of the pyloric end of the stomach. Here the folds of membrane are distinct and appear to converge towards the funnel-shaped pylorus, and to blend with the smoother mucous membrane in this region, appearances which are well represented in the colored sketch. (1.) The appearance of a case of acute gastritis. (2.) Of

anaemic mucous membrane. (3.) Of a stomach c petechiae. (4.) Of a case of stomach c gastric ulcer; and (5) of pyloric carcinoma. Such are some of the results already attained by the use of this instrument. We shall hope at some future date to bring before you further researches on the direct inspection of the lining wall of the stomach.

HOW TO STOP HICCOUGH.

This is often a very serious matter, and, as is well known, sometimes impossible. Hiccough is usually of no consequence, but during the course of acute diseases it becomes frequently a very dangerous and difficult complication. In the *Maryland Medical Journal* Dr. Kolopinski says he was able to stop the hiccough in such a case by taking a large spoon handle and pressing the tongue down and back with a steady force. He continued the pressure on the tongue, with the hope of further knowing the action of the palate muscles, when, to his surprise, the hiccoughs ceased. After the doctor's departure the hiccoughs returned, and the patient applied the spoon handle himself to the back of the tongue and with both hands pushed down firmly. The hiccough again ceased. The hiccough appeared several times later, and was always promptly stopped by the application of the spoon handle.

This is a very valuable suggestion, as it can be used by anybody, and might be the means of saving many lives.

SURGICAL HINT.

For the removal of fish bones, pins, needles, etc., from the upper part of the esophagus, if a bristle-probang is not at hand, make a little ball of absorbent cotton, lubricate it with a little butter after it has been tied to a string, and cause the patient to swallow it. By pulling it out again with the string the foreign body can often be removed.

SOUTHERN CALIFORNIA PRACTITIONER

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EDITORIAL

ANOTHER MEDICAL MERGER.

For twenty-four years the University of Southern California has had a medical college under its charter. The property, i. e., buildings and equipment used by this college, belonged to an independent corporation—the College Clinic Association. As recorded in the SOUTHERN CALIFORNIA PRACTITIONER some months ago this property was, free from debt, transferred to the University of California and the regents of the State institution agreed to maintain a medical college in Los Angeles that would give the Junior and Senior years, the Freshman and Sophomore years to be given at the parent institution in Berkeley. This transfer was approved by the majority of the Faculty of the College of Medicine of the U. S. C. and it was tacitly understood that, where

agreeable, the faculty of the State institution would be made up in a large part from the former faculty.

President Bovard and the trustees of the University of Southern California did nothing to embarrass this transfer. On the contrary they formally approved it in order to comply with the wish of President Wheeler.

President Bovard nevertheless steadily advocated the advisability of continuing the medical department of the U. S. C., believing that there should be a medical college that would give a four-years course in Los Angeles.

With the co-operation of Prof. Lyman Brumbaugh Stookey, who for several years has held the chair of physiological chemistry and physiology in the Medical College of the U. S. C., President Bovard planned to reopen that department this fall.

Instead of doing this it was wisely decided to merge with the College of Physicians and Surgeons of Los Angeles. This was accomplished and the papers were signed Saturday, August 14th, by which the college is to be The College of Physicians and Surgeons of the University of Southern California. Dr. Charles W. Bryson, the founder of the College of Physicians and Surgeons, becomes the dean of the merged institution.

The University of Southern California is undertaking a great work in becoming directly responsible for its medical department.

Under the wise administration of President Bovard we have no doubt of the success of this school, providing an endowment is promptly secured. High standard, hospital, endowment are the price of success.

Every broad-minded professional man in Southern California wishes that President Bovard may be able to engage this necessary trinity in the consummation of his laudable ambition. We are glad indeed that the University of California and the University of Southern California are to be directly responsible for our medical colleges. Los Angeles is destined to be the great educational and medical center of the Pacific Coast, and with high aims, a realization of their great responsibilities, an inspiring love for their fellow-man, the teachers in these two medical schools should ever have for their motto, Work! Work!! Work!!!

MALIGNANT NEW GROWTH IN CHILDREN.

The surgery of infancy and early childhood has experienced a marked redivivus in very recent times. The infant today with malformations and growths is looked on with hope and confidence by the surgeon. A recent paper on "Malignant New Growth In Childhood," by Dr. W. A. Edwards of Los Angeles appears in the *American Journal of the Medical Sciences* for July. It is devoted to malignant disease of the uterus, ovary and vagina in children.

Dr. Edwards is America's highest authority on this subject and we wish he would take time to write a book along this special surgical line.

In the introduction to this paper Dr. Edwards says: About twenty years ago, when I commenced to call attention to malignant diseases of the pelvic organs in female children, the references to be found in the literature were few indeed. I now make a special plea for the early recognition of malignant diseases in children. These diseases are no longer medical curiosities, but will be seen by all of us if they are looked for with care and intelligence. It is the early recognition that they need, because with early recognition early radical treatment will reduce the present rather appalling mortality. I make this appeal to the general practitioner; it is to him that we must look for any advances in our knowledge and treatment of these diseases. He has the first chance, and upon his diagnostic skill and acumen depends our ability to classify, study, and successfully treat the little sufferers.

Anyone who is specially engaged in the study of pediatrics will agree with the statement that female children, even young infants, are subject to the same affections of the genital organs that are found in adult females; in fact, they are probably more prone to at least one of them, notably gonorrhœa. We must also remember that many diseased states brought to our attention by adult women have their etiology in conditions which existed long before puberty was established. We rarely discover malformations of the genital tract in children, but they are studied with great ease in the adult. Salpingitis and localized peritonitis are rather frequent in little girls. Marx reports the postmortem examination of fifteen children who had symptoms of salpingo-oöphoritis similar to those found in the adult. In five of them the Fallopian tubes contained pus and their uterine attachments were sealed.

The examination of a child, no matter how young it may be, for the detection of malignant disease, is in all respects similar to that of the adult, except the vaginal and bimanual examination. We rarely examine young children by the vagina; in fact, it is hardly justifiable, unless the disease is manifestly vaginal or a vaginal discharge is evident. When it is necessary to examine the vagina of a young child, the cystoscope of Kelly, No. 8, 9, or 10, as suggested by himself, will be found the most available instrument. It is introduced with great ease and little pain if cocaine has been used; the child soon gets used to it, and if necessary applications of remedial drugs may be made to the different areas.

The knee-chest position is of great value in making these examinations; of course, the usual dorsal position is of great value, but in children it is less valuable than in the adult. Of greatest value of all in children is the rectal examination; a combined rectal and bimanual examination is ideal, no matter how young the child may be. If this be made a matter of routine, we shall be surprised how often grave disease is detected in these little bodies. Some years ago Carpenter, of London, was the anesthetizer for an examination of a case in obstinate constipation in a little girl which had resisted all usual methods of treatment. The examination was carried out by means of the rectal and abdominal method and a myeloid sarcoma growing from the anterior surface of the sacrum was found to be the cause of the obstinate constipation.

The sacrum and in consequence the rectum are almost straight. One will miss the well-known hollow of the sacrum, and the large lax ampullar distension does not exist. In young children, those who have not walked much, the bladder is about the size and shape of an egg, the base downward, and its site is almost purely abdominal. As the child walks more the bladder sinks lower in the pelvis, but until about puberty it can readily be displaced into the abdominal cavity by an examining finger, so loose in its attachment. The infantile uterus has but little body; it is practically a thin cord made up mostly of the cervix which at first appears unduly bulky. It lies comparatively high in the pelvis, but can be

rolled between the fingers and the symphysis pubis. In young children the ovaries are at the side of the pelvis close to the external iliac artery; the pulsation of this vessel is one of the guides for their location, the other being the sickle-shaped uterosacral ligaments.

A CENTRAL NURSES' DIRECTORY.

The basic idea of a central directory or register is admirable. For nurses who have no home organization in the city in which she practices it is a boon, but nurses who have an alumnae club and with it their own registry a feeling of friendship and fellowship makes them object to merging it into a general directory.

An excellent central directory was established in Los Angeles about a year ago, but the California Hospital Alumnae Association already had a flourishing registry, together with a delightful club life, that they could not give up.

The result is that Los Angeles has two reliable nurses' directories that have a friendly understanding with each other.

The *American Journal of Nursing* for August, 1909, tells of the agitation for a central directory in Baltimore.

"In May the Johns Hopkins Nurses' Alumnae Association held its annual meeting, and the registry question was reopened, with a fair number of supporters present. When, however, the statement was clearly made that to open a registry in the Medical and Surgical Building as proposed would mean closing the club-house on North Avenue and breaking up the home and social life there; and when a vote was called for on that basis, only two nurses voted

in favor of the change. These two were persons doing institution work, never living in the club-house, and in no way attached to it—or dependent upon it for home life. It will be long before Johns Hopkins nurses, working in Maryland, take any action which will abolish their club; it is professional headquarters for all, a social center for many, and the home of a large number. As is clearly shown, even the earnest advocates of a central registry are not willing to accomplish their object at such a cost; and this is significant, since the central directory plan originated in, and has been chiefly promoted by, the Johns Hopkins members of the state association. No doubt this same condition exists in other alumnae associations in Maryland; no doubt the breaking up of present centers of professional and home life seems too grave a matter to be entered into lightly and unadvisedly, and is one reason that the central registry idea has few adherents among private duty nurses, no matter from what school they graduated."

KLEBS' NEW WORK ON TUBERCULOSIS.*

America may well be proud of this work of her sons who are particularly interested in tuberculosis. Dr. Arnold C. Klebs, the editor, of Chicago, (who is a son of Dr. E. Klebs, whose bacteriological and other researches made his name well known to medical men the world over) is to be congratulated not only on the notable group of colleagues who co-operated with him in producing this volume, but also on preserving a much better balance in the subject-matter than is usually the case where a book of this type is made up of articles written by many men.

The contributors include Baldwin of

*TUBERCULOSIS. A Treatise by American Authors on its Etiology, Pathology, Frequency, Semiology, Diagnosis, Prognosis, Prevention and Treatment. Edited by Arnold C. Klebs, M.D. With three colored plates and two hundred and forty-three illustrations in text. New York and London. D. Appleton & Company. 1909.

Saranac, Barlow of Los Angeles, Biggs of New York, Brown of Saranac, Coleman of Augusta, Freeman of Denver, Hektoen of Chicago, Hutchings of Ogdensburg, Klebs of Chicago, Knopf of New York, MacArthur of Chicago, Minor of Asheville, Osler of Oxford, Pirquet of Baltimore, Ravenel of Madison, Sewall of Denver, Trudeau of Saranac, and Webb of Colorado Springs.

The book contains about eight hundred pages of text proper and an appendix of more than one hundred additional pages, containing an excellent bibliography, and among other articles, a copy of the International tuberculosis gold medal educational leaflet by Kress of Los Angeles.

The subject-matter presented is clearly arranged and lumbered with very little dead stuff. Each of the contributors has appended to his article a brief discussion of his topic, in the light of the recent proceedings of the International Tuberculosis Congress which was held at Washington in the fall of 1908.

To single out individual chapters in this excellent work is difficult. Hektoen's discussion of the morbid anatomy, Baldwin's review of the factors underlying resistance, predisposition and immunity, Minor's succinct and splendid discussion of symptoms, signs and physical examination, Brown's comprehensive and clear-cut presentation of the much debated subject of specific treatment—are all of far more than ordinary worth and must be read to be appreciated.

Of local interest to practitioners of the Southwest is the article on prophylaxis by Knopf of New York, a former student, resident and member of the Los Angeles County Medical Association, and the discussion of climatic therapeutics by W. Jarvis Barlow of Los Angeles, dean and professor of clinical medicine in the Los Angeles Department of the College of Medicine of the University of California. Dr. Barlow has grouped his subject under the sub-heads of historical aspects, general definition of climato-therapy, is there a specific climate, principal types of climate, general utilization of climate, open and closed resorts, the selection of a special climate or resort, and an enumeration of resorts.

His introductory remarks are a brief presentation of not only the meteorological but the social conditions which have so intimate a relationship to the climatic treatment of tuberculosis. In the enumeration of resorts is given practically a brief review of all the regions of the United States and some of Europe and Africa, to which tuberculosis patients are wont to go. For our own country, the summaries of temperature, precipitation, mean humidity, and total sunshine are given for the periods these places have been under the supervision of the United States Weather Bureau. The article will supply a want long felt by many practitioners, who in sending patients away to resorts, were quite at sea as to the exact meteorological and social conditions there existing.

This article is, however, only one of the many excellent chapters which make up this volume on tuberculosis, the

merit of which will win for it in a short time a well-deserved place on the library shelves of all who wish to keep in touch with the latest and best work that is being done to fight the disease which is responsible for about one-tenth of the mortality of the human race.

SPECIAL WORK ASSIGNED TO THE WOMEN PHYSICIANS OF THE AMERICAN MEDICAL ASSOCIATION.

The importance of educating the public on medical subjects in order to prevent disease was emphasized frequently at the recent meeting of the A. M. A. at Atlantic City. In the Section on Preventive Medicine and Public Health, in discussion, Dr. Rosalie Morton referred to the influences of women's clubs in promoting clean dairies, pure food, etc., and Dr. William Brumby, President of Texas State Board of Health, said it would have been impossible to accomplish anything in Texas if it had not been for the women; the men were too busy with individual interests to take up public health agitation; the women, however, at once realized the bearing on the home and helped promote all hygienic measures.

From this nucleus were developed the following resolutions which were presented by Dr. C. A. L. Reed, and passed by the House of Delegates:

"Whereas, The American Medical Association, not only as one of its declared purposes, but by numerous lines of activity, many of them connected with the Section on Hygiene and Sanitary Science, stands committed to the education of the public with respect to the nature and prevention of disease, and

"Whereas, The demand for such popular education with respect to tuberculosis, cancer, typhoid fever and other

decimating diseases has become urgent; therefore, be it

"Resolved, That all county, district and other local medical societies be and they are hereby requested to hold annually one or more open meetings to which the public shall be invited and which shall be devoted to a discussion of the nature and prevention of disease and to the general hygienic welfare of the people.

"Resolved, That the women physician members be and they are hereby requested to take the initiative in their respective associations in the organization of educational committees to act through women's clubs, mothers' associations and other similar bodies, for the dissemination of accurate information touching these subjects among the people and that they be requested to submit to the House of Delegates a yearly report of such work, and elect from their number a committee to take charge of the same."

Pursuant to this request, a central committee with representatives from different sections of the United States, was formed as follows: Dr. Rosalie S. Morton, New York, chairman; Dr. Annie L. Hamilton, Boston; Dr. Sara C. Buckley, Chicago; Dr. Lillian H. South, Bowling Green, Ky.; Dr. Margaret Holliday, Austin, Texas; Dr. Laura L. Liebhardt, Denver; Dr. Rose T. Bullard, Los Angeles. In addition, State secretaries are being appointed who will have immediate supervision of the work through county secretaries.

The Board of Public Instruction of the A. M. A., with representatives in each State (Dr. Philip Mills Jones in California) has as one of its functions "To supply the community at large with established facts regarding matters of general moment and public health, etc."

It is desired that this new committee, known as "The Public Health Educa-

tion Committee," shall not only supplement and strengthen their efforts, but also take up certain lines that have never been developed and by enlisting

the co-operation of women all over the country in a systematic way, exert an influence that will give results.

ROSE T. BULLARD.

EDITORIAL NOTES

Dr. A. W. Buell has located in Long Beach, Cal.

Dr. C. B. Kohlhausen of Raton, New Mexico, has been very ill.

Dr. J. A. Champion of Colton spent his vacation in the North.

Dr. N. J. Rice, formerly of Escondido, is now located in Pomona.

Dr. Wm. H. Dukeman of Los Angeles is doing the hospitals of the East.

Dr. R. W. Miller of Los Angeles is now taking a trip around the world.

Dr. Ralph Avery is in charge of the examination of the school children of Oxnard.

Dr. Rea Smith took an automobile trip to Lake Tahoe where he remained about two weeks.

Dr. Sherwin Gibbons of the Los Angeles Board of Health has been enjoying life in the mountains.

Dr. A. Miles Taylor of San Francisco has returned from Europe with offices in the Phelan Building.

Dr. H. G. Lamb, formerly of Coachella, is now located in Hueneme, Ventura county, California.

Dr. H. S. Wood, of Blooming Prairie, Minn., is visiting his brother, Dr. W. S. Wood, in Prescott.

Dr. O. O. Witherbee of Los Angeles has been enjoying a vacation at Seattle and other cities of the Northwest.

Out of 137 who were examined by the California State Medical Board in August 49 failed and 88 succeeded.

Dr. B. S. Frary has been appointed physician of the Santa Fe at Seligman, where he recently opened offices.

Dr. Mary E. Hagadorn of No. 376 East Colorado street, Pasadena, spent most of her vacation at Lake Tahoe.

Dr. Thomas V. Parker, for twelve years surgeon at the National Soldiers' Home, Santa Monica, died August 31.

Dr. Wellwood Murray, the pioneer physician of Palm Springs, Riverside county, has sold his sanatorium at that place.

Dr. Guy Cochran of Los Angeles, Chief Surgeon of the Salt Lake Road, has been enjoying a vacation at Monterey.

Dr. Oscar M. Marchman and Dr. Henry B. Decherd of Dallas, Texas, spent a few days in Los Angeles recently.

Mr. D. T. Haven died at Banning, California, August 27, from the effect of a bite of a black spider inflicted two days before.

Dr. Donald J. Frick of Los Angeles now has offices in the Wright and Calender Building, corner of Fourth and Hill streets.

"Latent Tuberculosis, Its Symptoms, Treatment and Prognosis" is an instructive brochure by Dr. Max Rothchild of San Francisco.

Dean Barlow has chosen for the Educational Committee of the College of Medicine of the University of California: Drs. Hill Hastings, Dudley Fulton and W. W. Richardson.

Dr. Robert W. Haynes of Los Angeles has been enjoying a vacation at Lake Tahoe.

Dr. D. Gochenauer resigned his position as manager of the Angelus Hospital, Los Angeles, August 15th, and returned to San Diego.

Dr. P. V. K. Johnson, health officer of Los Angeles County, has resigned as the duties of the position required too much of his time.

Dr. W. L. Holt has purchased the Banning (Cal.) Tuberculosis Sanatorium and will be prepared October 1st to take additional patients.

Dr. Bowditch Morton of New York, son of the famous Dr. Wm. T. G. Morton of Boston, died of heart disease in Long Beach, California, July 18.

London hotel owners report a big drop in the sales of wines and spirits during 1908. The drop was due to taking a drop becoming unfashionable.

Is the Pasadena Hospital a charity institution to be supported by gifts from the philanthropic or is it only for patients who can pay \$25 to \$35 per week? is the question that is being discussed by Pasadena officials.

Dr. Antoinette M. Bennette of San Bernardino has been appointed resident physician and superintendent of nurses of the County Hospital in that city. The doctor graduated from the Cooper Medical College, class of 1885.

Dr. Carl Clehorn Warden of Los Angeles has severed his partnership with Dr. George Martyn. Dr. Warden now has his offices in the Security Building and is devoting himself to clinical and laboratory diagnosis.

Dr. Outwater of Riverside will attend the annual session of the American Academy of Ophthalmology and Otolaryngology in New York City and will also spend a few weeks in the eye and ear hospitals of that metropolis.

Dr. R. C. Olmstead has been appointed medical inspector of the schools of Pasadena, succeeding Dr. Ernest B. Hoag, resigned. Dr. Olmstead graduated from the University of Michigan, class of 1906. He is a native of Ohio and twenty-eight years old.

Dr. H. Gordon Bayless and Miss Inez Pauline Chapman of Los Angeles were married Wednesday, August 11th. Dr. Bayless graduated from the Medical Department of the University of Ohio, class of 1881, and has been practicing in Los Angeles for twelve years.

In New York recently a boy, eleven years old, lay in Bellevue Hospital for six hours with a fractured skull waiting for his parents to be located in order to comply with the law that prohibits any kind of surgical operation on a minor without the consent of the parents.

Dr. Elbert Wing of Los Angeles attended the conference of the British Medical Association in Belfast, Ireland, the last week in July. We are indebted to Dr. Wing for advance sheets of the addresses on the Gastroscope that appear in this number of the *SOUTHERN CALIFORNIA PRACTITIONER*.

The Nevada State Medical Society will be held at Goldfield October 8th and 9th. Dr. W. T. Liggett of Goldfield is chairman of the reception committee and Dr. D. A. Turner of Goldfield is chairman of the committee of arrangements. The Esmeralda County Medical Society will be the host of the meeting.

Sir Victor Horsley, in the Linacre lecture on the function of the so-called motor area of the brain, concludes that this area is really sensori-motor and that the gyrus precentralis is in man the seat of representation of (1) slight tactility, (2) topognosis, (3) muscular sense, (4) arthric sense, (5) stereognosis, (6) pain, (7) movement.

The Santa Monica Bay Hospital Co. has brought suit against W. M. Kendall to recover \$500 due on the purchase of five shares of its stock.

Dr. Herbert M. Coulter of Azusa has been traveling in the East and during that time Dr. A. M. Duncan of Los Angeles attended to his practice.

The Ramona Hospital is to be the name of a private institution in San Bernardino. The contract for building the same has been let for \$13,037.

Dr. A. L. Tilton, formerly of Kingman, has returned to Truxton Cañon, where he again holds the position of resident physician at the Indian School.

Dr. Oscar H. Brown, the Santa Fe surgeon of Winslow, Arizona, has been taking his vacation in Washington, Idaho and Montana, and incidentally visited the Exposition.

Quite a bevy of Arizona physicians, headed by Dr. John W. Foss of Phoenix, will spend some days in Prescott during September attending the annual meeting of the National Guard of Arizona.

Dr. E. Payne Palmer of Phoenix is spending the summer in Europe. Dr. Palmer is devoting his time to special study in surgery and will visit the principal British and continental clinics while abroad.

Dr. John K. McDonnell, formerly of Crown King, has taken the offices of Dr. A. J. Rosenberry, of Jerome, where he will practice in future. Dr. McDonnell has the best wishes of the entire profession of Arizona for success in his new field of work.

Dr. Ralph Alexander of Tempe spent a few days in Prescott during the month of August. Dr. Alexander was much pleased with the climate of Prescott and contemplates building a summer home there for the use of his family during the summer months.

Dr. C. B. Canby, formerly of Globe, has opened offices in Prescott. Dr. Canby is a welcome addition to the profession of Northern Arizona.

The Pasadena Hospital has just added an elegant administration building to its group of structures, to be known as the Fowler Memorial Building. It was dedicated Wednesday, August 25. Dr. Sherry and Dr. Stehman are on the board of directors.

Dr. A. M. F. McCollough of Los Angeles died August 19. Dr. McCollough was a graduate of Jefferson, but retired from practice seven years ago. He was a capitalist and devoted himself to caring for his large real estate holdings. He was a citizen of high standing.

The *Detroit Medical Journal* has our sympathies. In its August issue it has an excellent biographical sketch of Rush's great surgeon, Moses Gunn, and also issues "with the compliments of the *Detroit Medical Journal*" a portrait, but the printer puts as the name "MOSES DUNN." Is life worth living?

At the Seventh Annual Convention of the Pacific Association of Railway Surgeons held in San Francisco, August 28 and 29, the following officers were elected: President, Dr. Carl Kurtz, Los Angeles; First Vice-President, Dr. O. D. Hamlin, Oakland; Second Vice-President, Dr. T. B. Reardon, Oroville; Treasurer, Dr. E. M. Keyes, Alameda; Secretary, Dr. G. R. Carson, San Francisco; member of the Executive Board, Dr. David Powell, Marysville.

At the recent meeting of the British Health Congress at Leeds, Dr. Brathwaite of the Home Office said: "Every inebriate is a potential criminal, a burden on public funds, a danger to himself and others. Moreover, by precept, example, neglect of his family, and the procreation of his species he is contributing to the supply of drunkards, to the detriment of the national welfare."

Dr. Geo. W. Lasher, who has taught surgery for twenty-four years in the College of Medicine of the University of Southern California, will now be the chief of the Department of Surgery in the Los Angeles College of Medicine of the University of California, while Dr. W. W. Richardson will be associate professor of surgery and Dr. W. W. Beckett will be professor of gynecology and surgery.

During the last thirty years the loss of life from pulmonary tuberculosis in the state of New York has been reduced 38 per cent, but in the same period the death-rate from apoplexy and diseases of the heart and kidneys has increased about 90 per cent—that is, from 19.2 to 36.3 per 10,000 population. In Massachusetts in the same period the increase of the heart and kidney death-rate has been from 28.6 to 41.4 per 10,000 population.

France, in order to increase the birth rate, proposes to pay a bonus on every baby except the first-born, the second baby to bring a payment of \$100 and every succeeding baby a bonus of \$200. It is also intended to impose a death duty of 50 per cent. on all collateral inheritance and all estates left by parents to an only child. It is also proposed that no civil servant or municipal officer shall be appointed to his office until he is the parent of three children.

Dr. John A. Reily has been appointed first assistant physician at the State Insane Asylum at Patton, San Bernardino County, California. Dr. Reily graduated from the Homeopathic Medical College of Missouri, class of 1898, and is a resident of Fulton, Missouri. As California had only about 6,000 licensed physicians to select from we suppose it was very necessary to bring in a Missouri product. Further, it is not a private corporation that is making this importation from Missouri; it is the great

state of California with her 6,000 resident physicians. Nothing against you personally, Dr. Reily

The Massachusetts General Hospital celebrates the 16th of October as Ether Day, the anniversary of the first surgical operation performed publicly upon a patient fully anesthetized. In an address on that occasion last year Dr. Wm. H. Welch, president of the A. M. A., said the chief glory of this discovery belongs to Dr. Wm. T. G. Morton, a dentist and medical student of Boston, and through its public use at that time the knowledge became as quickly as it could be carried, the blessed possession of the whole world.

Drs. E. R. Smith, John R. Haynes, M. L. Moore, and A. C. Rogers have been taking their vacation at the Flat Rock Club. This is a rustic club located on the North Fork of Snake River just outside of Yellowstone Park. The Snake River is noted for its fly fishing. Trout from 1 to 3 pounds are usual; 5 pounds now and then, 6 pounds the record. Dr. Smith returned to Los Angeles first and related many interesting and some thrilling incidents. He says: "Dr. Moore had a remarkable experience. He was out one day and found a bear in a hollow log and he, with great ingenuity, promptly cut four holes in the log about where the bear's feet would be; got the four paws through slick enough. He then tied a rope around the log and made the bear walk into camp with it. With the log for fuel and the bear for meat we lived high."

Dr. Idris B. Gregory of Ontario, California, has returned after three months' post-graduate work in the East. Ann Arbor is Dr. Gregory's alma mater and she had the pleasure of attending the commencement exercises, including alumni day, and she also attended the summer post-graduate medical school of

that institution. The doctor, before going to Ann Arbor, attended a six weeks' course in the New York Post-Graduate School and Hospital.

In an account of a railroad wreck at Mojave in which three men were killed and several dangerously injured, the *Los Angeles Times* of August 26 says:

Conspicuous for her heroism and untiring in her work of ministering to the injured, was Miss Emily Janette Richards, a nurse from the California Hospital, of Los Angeles, who left a north-bound train at Mojave in order to give aid to the wreck victims. The young nurse was taking her vacation and was on her way to visit her mother at Grass Valley, when she heard of the accident. Without the assistance of an accompanying physician, she brought the injured to Los Angeles, where they were taken care of by Dr. E. T. Dillon, surgeon for the Southern Pacific. After doing her duty to the needy, Miss Richards again started home last night.

Dr. W. W. Beckett of Los Angeles writes from Vienna, Austria, under date of August 16: "Since writing you I have seen Prof. Kocher of Berne. He is a grand old man. He looks to be at least seventy years old and acts as though he were about fifty. He operates without glasses, and, from the neat and careful dissections he makes, I am sure he does not need them. He is a splendid operator. We saw him do a variety of operations and he did them all equally well. For his goiter operations he used local anesthesia, for prostatectomies spinal anesthesia, and for the other operations he used ether. He does an immense amount of work and seems to stand it better than many very much younger men would. Vienna is the place to study pathology—a dozen to twenty autopsies each morning. I expect to see Lorenz tomorrow."

The Perfect Hospital would be a fit name for the institution just completed in San Francisco by the Southern Pacific Company. It is not the work of a professional architect. It is the work of a practical railroad surgeon of many years' experience. Dr. F. K. Ains-

worth, the Chief Surgeon of the Southern Pacific Company, has here worked out his ideals. While the builders have been putting in cement and tile and steel and marble they have also put Dr. Ainsworth's personality in every nook and corner of the structure. The building cost \$800,000, and there has been no detail that would count for the comfort and efficient treatment of the patient that Dr. Ainsworth has not worked out personally. Many of the fixtures in the surgery, the electro-therapeutic department and the hydro-pathic department are his own inventions.

Dr. Barbellion of Paris, in a report on the digestibility of the different kinds of milk, said in part: That (1) the curd of cow's milk forms a dense, adhering mass, which by agitation separates into clots that are but slightly soluble. The curd of goat's milk, on the other hand, forms into very small, light flakes which are soft, very friable and very soluble, like those in human milk; (2) the curd in both human milk and that of the goat, after agitation, is precipitated very slowly and incompletely, while the curd of cow's milk is precipitated very rapidly and very completely; (3) submitted to the action of digestive ferments, human milk and the milk of the goat were digested completely in twenty hours, while the same process applied to cow's milk showed only a very slight advance after sixty hours; (4) the milk of the goat approximates more in its composition and digestibility to human milk than that of any other animal."

The increasing demand for goats' milk has led Messrs. Howland and Hurd of Redlands, California, to develop a flock of Swiss milch goats. They imported their breeding animals from the Toggenburg Valley, a district forming a considerable portion of the Canton St. Gallen, in the northeast section of Switzerland.

Dr. Charles Turner Sands, pathologist and assistant physician at the New Mexico Cottage Sanatorium, Silver City, left August 1st for the East. While there he will be married in the latter part of September and return here with his bride about the first of October. During Dr. Sands' absence, Dr. Henry Graeber, chief resident physician of the Presbyterian Hospital in Philadelphia, and a graduate of Johns Hopkins University, will be Dr. Bullock's assistant.

The *Los Angeles Graphic* of recent date says: "Dr. J. H. Davison, who may be regarded almost as a Los Angeles landmark, is recovering from a siege of heart trouble extending over a period of four months and confining him to his couch at the family residence, 920 Westlake Avenue. The doctor is one of those kindly philanthropists whose innumerable good deeds have been performed in a most unpretentious manner in all the years he has lived here. Although retired from regular practice for a decade, the call of charity always has found in him a willing and generous response. Dr. Davison is a valued member of his profession, having contributed many papers upon medical subjects of vital interest. He has been one of the recognized authorities on the subject of the white plague. He has a wide and lasting friendship among the best families of Southern California and a host of friends will rejoice to learn of his returning health."

Dr. J. L. Jones of Los Angeles, who graduated from the Louisville Medical College, class of 1872, is a member of the blue lodge, A. F. and A. M.; of the council and commandery of the York rite; of the lodge of Perfection, Chapter Rose Croix, Council Knights Kadosh and consistory of the Scottish rite; Mother Solomon lodge, No. 1, of Jerusalem, Eastern Star; Southern California Past Masters' Association, I. O.

O. F. lodge and encampment, Rebekah lodge, Knights of Pythias, U. R. K. P., Knights of Khorassen, Rathbone Sisters, Modern Woodmen of America, Uniform Rank of Foresters. The Fraternal Brotherhood, Knights of the Maccabees, Uniform Rank K. O. T. M., Court of Honor, Good Templars, Independent Order of Foresters, ladies' auxiliary of that order, American Foresters, Companions of the Forest, Past Chief Rangers' Association, the Grange, Settlers' Protective Association, Patriots of America and over a dozen others.

A letter from Dr. W. W. Beckett dated Paris, July 24, says: "After leaving London we had a very pleasant trip through Holland, Belgium and Northern France. We visited The Hague, Amsterdam, Rotterdam, Antwerp and Brussels. I have spent most of my time here in Paris with Prof. Pozzi and Prof. Tuffier. They are both great men and have been very kind to us. Dr. Hartman is also a good surgeon and a man who stands high here. He is very thorough. We have also seen Dr. Heitz-Boger, a young man who is coming rapidly to the front. He probably has the largest G. U. clinic in the world. Dr. Borrel at the Pasteur Institute is an enthusiastic pathologist. He is making extensive experiments with mice along the line of malignant diseases. He has a thousand mice infected with cancer. He believes cancer to be an infectious disease. We go from here to Cologne, then up the Rhine and on to Berne, where I hope to see Kocher take out some goiters."

The *Typhoid Carrier* is a term that occurs frequently in current medical literature. The *Folia Therapeutica* of recent date says: "One of the most significant of the new facts is the demonstration that there exists a fairly large number of 'typhoid carriers.' It is perfectly clear that a person who has had typhoid fever even ten years

previously may be harboring typhoid germs in his gall-bladder, intestinal canal, and also excreting them in his urine. Some of these typhoid carriers may never have actually suffered themselves from the disease, but they have acquired the germs by coming in contact with typhoid-fever cases. Some may have suffered so mildly that the illness was not recognized as typhoid. It is obvious that the excretions of such individuals may be a fertile source of epidemics. Such an epidemic recently occurred in Munich, in one portion of which the disease obstinately persisted. The drinking water of Munich was of excellent quality and was above suspicion. Further investigation pointed to the milk and butter of a certain dairy in the vicinity of the city. As a matter of fact, one of the milkmen had suffered from typhoid and was a bacillus carrier, and had been infecting the milk. When he was discharged the epidemic ceased in Munich."

The *Los Angeles Examiner* of August 15th says: "Dr. W. L. Fuller of Searchlight, Nev., arrived in Los Angeles Friday night and at that time did not even contemplate matrimony. Last night at 8 o'clock he returned to Ne-

vada and with him was his blushing young bride, who was formerly Miss Anna Mathieson, a nurse at the county hospital. When they left Los Angeles last night Dr. Fuller furnished the following memorandum to the Examiner, showing how the arrangements were all crowded into three brief hours:

"At eleven o'clock in the morning went to the county hospital.

"Met Miss Mathieson at 11:05 a.m.

"At 11:10 decided to be married at 2 o'clock in the afternoon.

"At 11:30 had twelve bridesmaids and one best man.

"At 12 secured marriage license at court house.

"At 12:30 had dinner at Hollenbeck.

"At 1 o'clock secured preacher.

"At 1:30 arrived at county hospital and secured pianist to play wedding march.

"At 1:40 rested for twenty minutes, until ceremony was commenced.

"For six months Dr. Fuller has been engaged to Miss Mathieson, but not until his visit at the county hospital yesterday was the wedding date set. When Miss Mathieson commenced her work at the hospital yesterday it was not even suggested that a wedding would take place. At 11 o'clock she met Dr. Fuller, and ten minutes after it became known when and where the wedding would take place. 'We just decided to get married now,' was their only statement by way of explanation."

Dr. Fuller is a graduate of the College of Medicine of the University of Southern California and was formerly an interne of the Los Angeles County Hospital.

CORRESPONDENCE.

TUBERCULAR HYGIENE AND DIET.

To the Editor:

Realizing how useless it is to tell the poorer class of tubercular patients just what they must eat, how long they shall sleep, how many baths they shall take and how much rest they will require, I have found the following list, which is typewritten and given to them, to be of great benefit. As a rule they will tack it up in a conspicuous place and follow it out for some length of

time. The diet list is copied principally from Osler and Ashton.

DAILY ROUTINE.

The following are not fixed rules, but are simply to give the patient an idea of his mode of living, which must be in the open air at night and as much during the day as possible.

7 a.m.—Get up and take either cold shower, sponge bath or alcohol rub.

8 a.m.—Breakfast consisting of mush, gruel or fruit with cream, eggs soft boiled, poached, scrambled or omelet;

fat bacon, rare steak or chops, milk toast, buttered toast, honey, preserves, cocoa, chocolate, milk or coffee.

Rest.

9 a.m.—Walk one and one-half hours.

10:30 a.m.—Glass of milk, cocoa, egg-nog or bread and butter.

Rest.

12 m.—Dinner consisting of soups as bean, mutton, clam or chicken broth, oyster, cream of rice or boullion; fish, oysters or fatty fish such as salmon; meat, rare roast, steak, chops or fowl; vegetables, potatoes, baked or creamed, peas, corn, tomatoes, lettuce with olive oil, string beans or celery; ripe olives; desserts, rice, sago or tapioca pudding, ice cream, berries, baked apples or prunes with cream, custard, oranges, wine, jelly, milk, cocoa, beer, red wine, cheese or nuts.

2 p.m.—Walk one and one-half hours.

3:30 p.m.—Glass of milk, cocoa, egg-nog or bread and butter with honey.

Rest.

5:30 p.m.—Supper consisting of rare steak, chops or eggs and potatoes; milk toast, gruel, buttered toast, bread and butter, milk, chocolate, fruit, honey or preserves.

9 p.m.—Warm drink of cocoa, milk, egg-nog or milk shake.

9:30 p.m.—Alcohol rub and to bed.

R. G. WHITLOCK, M.D.

"THE MACHINE FOR THE DETECTION OF LYING."

Under the above caption there have been going the rounds of the lay press certain sensational mistatements about an apparatus said to have been invented by Dr. Peterson of New York and Dr. Jung of Zurich, writes Dr. Schlub in *La Semaine Medicale* for February 24, 1909. Naturally our diagnostic methods have not yet reached such a degree of refinement, and *Newspaper Science* is in this instance as it is not unfrequently, in error. The

actual facts are, however, interesting, even though no one has claimed to have a machine which can detect lying.

That a galvanic current passed through the human body varies in intensity under stimuli, physical and mental, was observed as long ago as 1849 by Dubois-Reymond and allusions to this fact occur from time to time in the literature since then. Tarchanoff in 1890, however, seems to have been the first to find out that such variations uniformly took place, not only under stimuli such as the prick of a needle or the faradic brush, but also upon the threat of such stimuli, under the recollection of some fear, fright or joy, or in general after any strong emotion. The matter does not seem to have attracted much attention at that time, even the author having failed to attach to it any great practical value. About four years ago, however, E. K. Müller, an electrical engineer of Zürich, in the course of some experiments upon the resistance of the human body, found that the mirror galvanometer showed increased deflection under psychic stimuli.

His paper read before the Swiss Society of Natural Sciences led O. Veraguth, a Zürich neurologist to take up Müller's experiments, and to publish an account of the phenomena observed which he described under the name of the "Psycho-galvanic reflex." C. G. Jung, who had for some time been engaged in the study of the time and manner of association formation and the diagnostic inferences to be drawn from them, at once saw in the galvanometer a valuable adjunct, and has carried out with it, both alone and with Dr. Peterson of New York, a number of experiments, accounts of which have been published in the *Journal of Abnormal Psychology* for February, 1907, and in *Brain* for July, 1907. Their method is in brief as follows. Utilizing the current from one or two Bunson cells

with two large copper plates upon which the hands rest as electrodes, they introduce into the circuit a Deprez-D'Arsonval mirror galvanometer, the beam of light from which plays upon a long scale on which slides a movable indicator which is connected with a pen tracing records upon the kymograph. A rheostat is added if needed. It has been found that the galvanometer shows a slight deviation on increasing or decreasing the pressure of the hands upon the electrodes, and a greater rise upon deep inspiration or expiration and upon coughing. These deviations are placed under the head of fluctuations due to physical causes and disregarded in practice.

The interesting feature is the rise of the galvanometric wave after a short latent period, following emotion of any sort. What causes this rise has not so far been positively determined, but it is thought to be due to increased moisture of the skin of the palms, either through exudation of sweat, or the mere filling of the ducts of the sweat glands, so decreasing its resistance to the current. In normal persons, as soon as the circuit is completed and the experiment is begun, there is a sudden and rather rapid rise in the curve which is attributed to expectant attention. A rise also occurs in connection with threats of a stimulus as of pricking with a needle, or of the sudden letting fall of a weight, but after several repetitions the influence of expectation gradually fades. Excluding the influence of attention it has been found that "every stimulus accompanied by an emotion, causes a rise in the electric curve directly in proportion to the liveliness and actuality of the emotion aroused." The galvanometer can hence be used to measure emotional tone, and this is the important point of the matter, for here we have the addition of an instrument of precision to our methods of psychological research. As

Jung has shown in his diagnostic association studies, when a word which calls up an idea or train of ideas with which a strong emotional tone is connected, is uttered, this emotional tone is manifested by the lengthening of the time required for the production of the associated word and often by the character of the association itself. In addition, there is often what he calls "perservation;" that is, the influence of this connection (or "constellation," as he calls it,) is extended over the several succeeding reactions, their time being lengthened beyond the average. Its influence is also shown when the test is repeated, the subject showing difficulty and delay in repeating the same associated words.

These observations have been utilized by Jung and others, to obtain, by skillful selection of questions, an indication of the patient's emotional constellations, and by so doing it has often been possible to secure acknowledgments of facts which had been studiously concealed. This method has also been proposed for forcing a confession in the examination of criminals, and was some time ago exploited in this connection in the lay press of this country by an eminent psychologist.

Now of course if the presence of an emotional constellation can be shown by means of an instrument of precision working independent of the will of the subject, our experiment rests upon a firmer basis, and it is probably the magnification of the importance of this fact which has led the journalistic imagination to declare that "the machine for the detection of lying" is at hand. That this is not the case will readily appear, for important and interesting as this discovery really is, its application presents many sources of error and its results must be interpreted with the greatest caution.

CHARLES LEWIS ALLEN.

MEDICAL ANGELENOS ABROAD.

From a personal letter from Dr. Fitch C. E. Mattison to the Assistant Editor, dated Kurhaus and Grand Hotel, Schwiezerhof, am Rheinfall, Neuhausen (Schweiz), Den July 28, 1909, we excerpt the following paragraphs:—

"We are at this beautiful spot and as our hotel overlooks the Rhein Falls, we are lulled to sleep by its music—rather restful after our stay in Paris.

"We had a good time in Paris, had letters to some of those fellows—Pozzi, Taffier, Hartman, etc. Taffier gave Beckett and myself a nice luncheon at his home. Saw him do some of his spinal anaesthesias. I was in Paris nine years ago when he first demonstrated it and saw him do some cases then when he had done less than fifteen cases. He has abandoned the use of cocaine and use stovaine, a preparation from chloral. He operates most of the time, however, under chloroform and oxygen. Says spinal anaesthesia good in selected cases.

"Patzzi is the cleanest operator we have yet seen. We shall go to Berne to see Kocher next week.

"We had a nice trip up the Rhine. Dr. McBride and his son and daughter were with us. Dr. Melton's wife (of Pasadena) was with us from Bonn to about Bingen. Her home was at Bonn and she made a good guide for us. Yesterday we visited Heidelberg and the old castle and remained over night in Heidelberg. I saw a lot of their scarred up students; they get some fellow to scratch their faces and make believe they have fought in duels.

"Have seen very little 'Public Health' work over here; they are far in advance of us and have much cleaner sites and rules. London is planning a 'Horseless Day;' that is, they will wash certain streets that will be set aside for the demonstration and allow nothing

but horseless vehicles on these streets for a day. This is to demonstrate how much cleaner streets can be kept without horses traversing them. They are to have this in August.

"When in the English lake region we saw a lake about ninety miles from Manchester that is to supply Manchester with water, and although the distance is less, it will cost about the same as our Owens river project, some \$20,000,000, which I believe comes about 240 miles against their 90 miles. So I guess Los Angeles is not paying so very much for their supply."

DIAGNOSIS OF INFLAMMATION OF THE COLON AND AP- PENDIX.

Editor Southern California Practitioner:

DEAR DOCTOR: I do not believe there is placed on the table of our medical library another journal so valuable to the doctor of medicine as the SOUTHERN CALIFORNIA PRACTITIONER. This is not said to flatter its editor, but to properly emphasize the compliment I mean to express when I say that one of its most valuable articles so far this year is one written by Dr. Dudley Fulton entitled "Diagnosis of Inflammations of the Colon and Appendix."

Dr. Fulton gives expression to the belief that the pulse is the safest indication of any acute abdominal inflammation. It is true that toward the termination of disease the pulse is exceedingly instructive, but I do not think it can be relied upon in diagnosis for the following reasons: The pulse rate varies in normal adults from 50 to 100 the minute and unless the physician is familiar with the pulse of his patient he is unable to estimate the relation the present rate bears to the normal; the rate of the pulse is greatly influenced by a harmless distension of the stomach; and every psychical impression has

its effect on the pulse. I believe the leucocyte count is much less variable and much more reliable.

The statement is made in the article that fever is one of the most constant symptoms of appendicitis, it never being absent especially at the beginning of an attack. If it be possible for inflammation of the nasal mucous membrane, for instance, to exist without fever it does not seem unlikely that the scanty membrane lining of the appendix may be inflamed also without perceptible fever. When Dr. Fulton observes that it is never absent at the beginning of the attack it is evident he specifies the beginning in order to exclude the period of threatening collapse when the temperature is subnormal; but I think it is equally important that he refuses to include the first few hours of the disease when the temperature is often normal. I fully believe and, in order to be as radical as Dr. Fulton, I will say that fever is always absent in the very beginning of the attack. It is not uncommon for surgeons to operate a few hours after the appearance of both pain and fever and find the appendix in a gangrenous condition.

The article states that in appendicitis and acute cholecystitis a tumor is usually present, but in neither may it be palpable because of rigidity of the rectus. I believe it is usually dangerous to mention the tumor in discussing appendicitis for the simple reason that, in spite of its being possible often to palpate the end of a gas-filled caecum even early in appendicitis, the rule is for the real appendical tumor not to appear until a later stage in the inflammatory process, and in waiting for this there is a loss of much valuable time.

The statement is made that chronic appendicitis is more difficult to diagnose than the acute disease. On this point I differ from the writer. Almost all diseases with which appendicitis is

likely to be confused are acute in their course.

In regard to his opinion that there is a distinct loss in the elimination of typhlitis as a clinical entity I will say that I believe its retention as an important entity would be most disastrous. What a little inflammation of the mucous membrane lining the caecum amounts to I am unable to see. If it is more extensive there are the usual symptoms of colitis; if more severe, the appendix practically always is to blame. The appendix and all other hollow viscera become inflamed on account, generally, of the lack of drainage, but the caecum is always well drained except in rare cases of intussusception, new growths, and syphilitic contractions. I do not think we have any more use for the word typhlitis than for words to indicate inflammation of every other three inches of the intestinal tract.

As to perityphlitis, there seems to be little more excuse for its retention. Dr. Fulton states he sees no reason why we cannot have perityphlitis as well as perisigmoiditis and calls attention to undoubted cases of the latter disease resulting from the passage of colon bacilli through the mucous membrane of the sigmoid. But there is a great difference. By the time the feces lie in the sigmoid a few hours they become dry and hard and often wound the intestinal wall, but the contents of the caecum are soft and unable to do physical damage. I do not say that pericolicitis does not occur as a result of the migration of germs through the colonic wall, but I will say that primary peritonitis in any locality, except the neighborhood of the rectum, is of such rare occurrence that the sooner doctors forget perityphlitis the better it will be for their patients.

Lastly, I wish to make a single comment on the observations in regard to the importance of colitis. Dr. Fulton has had 158 cases during the last eighteen months, which is a remarkable rec-

ord. He says: "This is the crucial diagnosis point of chronic colitis—its symptoms are present when the bowels are constipated and absent when the bowels are normal." We will admit that enteritis sometimes stimulates the splanchnic nerves and produces constipation, but this is usually reported as a novelty.

If the author's cases of chronic colitis are nearly all cured by relieving the constipation, is it not reasonable to as-

sume that constipation is the cause of the trouble? If this be true, would it not be more in accord with the principles of nosology to classify most of these cases as chronic constipation with secondary colitis? And is it not possible that a search for causes may take us back of constipation even—perhaps to a nervous debility such as Nothnagel suggests?

H. E. MACDONALD.

1331 South Flower St.

OF GENERAL INTEREST

IBSEN'S ALTRUISTIC PHYSICIAN.

I was discussing with Dr. Walter Lindley the other day, at luncheon, his recent experiences abroad, and after exhausting many topics in which we were mutually interested, asked him how the London and Paris theaters and actors compared with our own. Laughingly, he quoted what May Robson said last week, that the only good actors she had seen on the Paris stage were two monkeys, which he admitted was worse than his experience in London. Said Dr. Lindley: "I went there expecting to see the best there was in acting, but while I was in the British metropolis not a great actor appeared on the London stage, although it was the height of the season. In that same time the theaters of Los Angeles had Nazimova, Otis Skinner, Mrs. Fiske, John Drew, Ethel Barrymore and others of equal note. This made me realize what advantages we have right at home."

ACTORS AND ACTRESSES OF LONDON STAGE.

"One afternoon," said he, "I went to His Majesty's Theater, Haymarket, and saw Beerbohm Tree in Ibsen's 'An Enemy of the People.' The hero, a theoretical, altruistic physician, brought out most graphically the sordidness of the average man. The play was intense.

Marie Tempest, at the Comedy Theater, was giving, delightfully, to crowded houses, 'Penelope.' In this play also a doctor and his wife hold the center of the stage, and Marie is the doctor's chic and charming wife. I enjoyed Bernstein's 'Samson' as portrayed by Arthur Bourchier at Garrick's. This play had been on for one hundred nights. At the New Theater, St. Martin's Lane, owned by the comedian, Sir Charles Wyndham, Fred Terry was giving an enjoyable 'Henry of Navarre,' with beautiful Julia Neilson as Marguerite de Valois. Beerbohm Tree's regular play at His Majesty's Theater, Haymarket, was 'The School for Scandal.' I saw it in its two hundred and tenth performance. Whatever may be said of Beerbohm Tree as an actor, he is without doubt a great manager. Sheridan's play was costumed and staged with historical accuracy and without regard for expense. The stately minuet was magnificent."

LONDON VAUDEVILLE SUFFERS BY CONTRAST.

"As to London vaudeville," continued the doctor, "as a rule it was nothing like so good as can be seen any evening at the Los Angeles Orpheum. At the Tivoli, on The Strand, Harry Lauder was the whole show. He gets

\$1,200 a night, and there are in London only six theater nights in the week. Rounds of 'Hear! Hear!' and encore after encore greeted this humorous Scot. Rose Stahl, the bright American, was drawing great houses in 'The Chorus Lady.' She had the Britisher crying and laughing. Caught him coming and going. They translated her slang on the instant and got right in the swing of her whole performance. I searched in vain for the London 'pit' of history. It has given way to the orchestra of American theaters, and while seats in the first balcony are usually considered the choicest, prices are about the same as in the orchestra. In both London and Paris the ushers are women. The theaters are none of them large, and the prices are as high again as in the United States. A good seat, either in orchestra or first balcony, in the leading London theaters, is twelve shillings (\$3)."

EXTENSIVE PROGRAMS. CHEAP TAXICABS.

"Another thing that surprises the American is that all programs are sold at from sixpence (12 cents) to a shilling. On the other hand, speaking of expenses, it is remarkable how cheaply one can travel in taxicabs. For instance, Mrs. Lindley and I took a friend with us to Rejane's Theater in Paris, and after the performance I called a taxicab. We left our guest at her hotel and then went to our own. Taxicab charges, one franc five centimes, or twenty-one cents. Here is a further example in London: We called a taxicab that took my wife and me from the Victoria Hotel, Northumberland Avenue, to the grand opera, Covent Garden Theater. Taxicab charge, eight pence (sixteen cents). In all cases a ten cent tip is expected. The opera was 'Madam Butterfly,' with Mlle. Destinn in the leading role. I know nothing of music—just enough to enjoy it—but the place to see grand opera is Paris. 'L'Opera' is the center of Paris. I

heard Gounod's 'Faust.' The orchestra, ballet, chorus and leading roles were doubtless perfection. In the grand foyer, between acts, were the occupants of all the boxes joined in a grand promenade and made a panorama never to be forgotten. I also saw Maeterlinck's 'Pelleas et Melisande,' to the music of Debussy, at the Opera Comique. It is said that the music of Debussy is epoch making, but it must take an artist to understand it. Nevertheless, the acting and singing were thrilling and impressive."—*The Graphic*, July 27, 1900.

THE USE OF TOBACCO BY ADULTS.

In another column of this issue we print an interesting letter in regard to our recent editorial on "The Use of Tobacco by Schoolboys." Our correspondent evidently takes exception to our approval of the temperate use of tobacco by adults on the ground that such use, whether or no harmless to them, may influence the young to an indulgence certainly detrimental. Assuredly "*maxima reverentia debetur pueris*," and grown-ups should be willing to sacrifice much for the sake of example to the immature. Nevertheless, adults constantly do and must permit themselves various indulgences in food, work and pleasure which are to them harmless, but would be injurious to children or adolescents if imitated. It is the province of wise education to explain the nature of these practices and prevent their becoming ill examples. Adult prime is, after all, the acme of human existence, towards which childhood is an evolutionary and probationary stage. It is one of the highest duties of adults to foster and safeguard those who are passing through this period, but it does not seem that they would most effectively do so by adopting for the regulation of their own

conduct the standards appropriate to children.

The question of the physical harmfulness or innocuousness of the moderate use of tobacco by adults must be settled on its own merits by scientific investigation. It would be out of place to discuss it here. Granting, however, that such use were proved to produce ultimately a certain amount of not very serious damage to the organism, the question would still remain whether such use were not still justifiable if it facilitated or intensified some of the higher activities. After all, human life is not purely a physical affair, nor is a rigidly scientific attitude always practicable or desirable, even for physicians. Man does not live for his bodily welfare alone, and some of his greatest achievements are accomplished at the expense of physical detriment. Hard labor, responsibility, profound thought, the wear and tear of life, ultimately induce degenerative tissue changes. "The paths of glory lead but to the grave." Doubtless we should all be more robust if we lived outdoors and not in houses, yet without architecture civilization would be impossible. Because farming is more healthful than sedentary occupation, no one would advocate abolishing the professions. It were as well to argue against art, love and religion because the emotions they induce sometimes upset the mental and physical equilibrium. Should the engineer relinquish his post because watching signals causes eyestrain, or the physician refuse to rise at night because loss of sleep will shorten his years? Now it is the testimony of many of the world's most eminent, honorable and enlightened men that the use of tobacco has been to them an aid in their good labors for the benefit of mankind, testimony too numerous to be lightly neglected. For to those who know how to practise it, smoking is not merely a sensual pleasure. It calms the passions, clears

the mental processes, and fortifies against the "slings and arrows of outrageous fortune." In other words, it is one of the agents by which man is helped to meet and conquer certain adversities and limitations of his environment. Such advantages, if afforded by tobacco, should at least be weighed against its possible physiologic and histologic damage. Perhaps in an ideal world there were no need or excuse for even the temperate use of tobacco. But until such be attained, it would seem to have legitimate place in a rational life; to be humanly, if not scientifically, justifiable.—*Editorial Boston Medical and Surgical Journal, August 12, 1909.*

NO CUTTING.

BUTTON-HOOK SURGICAL WORK.

An Almost Bloodless Method of
Operating—Appendix Can Be Cut
Off and Patient Can Walk
Home Without Incon-
venience—Only Slight
Shock to the Ner-
vous System
Is Suffered
Thereby.

"Button-hook surgery" might be an excellent and appropriate name to apply to the methods of an entirely new school of surgery. It is claimed that this new system of surgery makes it possible to extract your appendix or one of your ribs in the course of a pleasant afternoon call, and send you on your way rejoicing. They have reduced blood-letting to a minimum in surgical operations. They have made it possible to perform any of the heretofore dreaded "major surgical operations" without the usual complicated system of previous medication and to pass a patient on from their operating tables to a day's

work in his garden or his office. They have abolished the tedious after-nursing, and the dreaded period of hospital convalescence. With them it is simply a case of "operations performed while you wait," just the same as a man calling at the cobbler's to have the shoes he is wearing half-sole'd.

The new system might be called "bloodless surgery" with as good a right to the title as can be, but the members of the school do not call it that. They haven't any official name as yet, and probably never will have. The only name now in use for the identification of their methods is the "Rome plan," because of the fact that Dr. William B. Reid, one of the founders of the new school, and one of its most successful practitioners, began his experiments in Rome, N. Y. They are ardent vivisectionists to a man, because every one of them entered the practice of surgery through vivisection, and last spring, when the Lee-Johnson anti-vivisection bills were introduced at Albany, they appeared in a body to oppose their passage.

The button-hook or the crochet needle is the best description that can be given to the lay mind of the instrument the new school of surgeons uses in place of the knife to force an opening, where a knife would make an incision. In an operation for appendicitis, for example, instead of the usual four or five-inch so-called McBurney cut, a tiny opening is made in the flesh just large enough to admit the entrance of the "crochet hook."

Then begins a delicate manipulation of the flesh. The flesh, they claim, is nothing more than a fabric. The tissue is built up of "fibre," just as wool, cloth or other fabric. It has grain and texture. Through the first tiny opening, through epidermis, cuticle or muscle, the elastic fibres are pushed aside, layer by layer, by stretching. Veins and arteries when encountered are

drawn to one side, just as are ligaments and flesh fibre.

There is no cutting; only separation, by simple yet skillful use of the "teasing needle." Through the opening thus formed the appendix is removed. The opening closes naturally, just as a bundle of taut elastic bands assume their original place in regard to each other when pressure is removed. These surgeons do not assert that it is a bloodless method, but they say that when they have concluded an operation there are no torn and severed fibres to be united by slow growth and painful treatment.

The dread of an operation, as it is usually performed, is due to the cutting and the long period of inaction, to say nothing of the pain involved in mending and surviving the shock to the body. The wonderful part of the new theory and practice is its simplicity, and statistics seem to bear out the claims as to its practical success.

A surgeon of the new "button-hook" school has the record of 103 operations for appendicitis without losing one patient. And the patients in this record of 103 successful cases without a failure were from a working population—mechanics, laborers, humble housewives, to whom the expense of a hospital recuperation would have meant the outlay of a lifetime of savings.

The whole philosophy of the 100 per cent. record which the Rome plan doctors claim is, according to their assertions, the minimizing of the loss of blood, and so preserving the strength of the patient by reducing the possibility of reaction. Anesthetics form an important part in the successful practice of button-hook surgery, but these men have no new wrinkles not accepted by the profession at large.

Another proud record of the new school is five Caesarean sections—the most serious of all operations—with-

out a failure. Dr. Reid performed an abdominal operation on a woman of 94 years, Mrs. Mahoney of Rome, a unique experience in the annals of surgery. He tells laughingly of a little girl who was so delighted at finding that she could walk home after being operated on for appendicitis that she had her brother snapshot her out walking half an hour after leaving the operating table. Transfusion of blood is another feat the Rome pioneer has performed successfully, several times with the aid of his "button hook."

"My own special aim," said Dr. Reid to a representative of this newspaper, "has been to operate with little or no loss of blood and with as little shock as possible to the nervous system, so that the period of recovery is reduced to a minimum. This common practice to do major abdominal operations without the loss of more than a spoonful of blood, and to more complete recovery and a return to the active pursuits in from ten to fourteen days. If the methods are followed carefully, a patient usually can walk home after being operated on if the distance is not too great.

"Perhaps the point where we differ most from the common practice, is in the place of the hospital surgery. Good and necessary as hospitals are, the best hospital in the world is a mental torture chamber. The poorest home, if it is clean, is a better place. The average person has an innate horror of the word 'hospital.' And fear is the one thing above all others we work against. We minimize as far as possible the hospital idea. We encourage the presence of husband or wife or other members of the patient's family in the operating room. When the patient recovers from anesthesia we want him to see a familiar face. To this we attribute our success in reducing the 'morbidity' ra-

tio. Let the wonderful recuperative power of the human body take care of the rest."

Dr. Reid carries the anti-hospital idea so far that on one occasion when summoned into the country to attend a woman suffering from acute appendicitis he used the ironing board as an operating table, setting it in the kitchen window, where the headlamp of his automobile could be used as a light to operate by.—*Exchange.*

DENY "WIRELESS" INJURES HEALTH.

Operators Take Issue With French Physician—Assertions Made by Medical Journals in Europe Are Declared to Lack Every Element of Fact.

SEATTLE, Wash., June 4.—"If wireless waves are harmful to man I have yet to see the injurious effects and I have been in the path of more wireless waves than possibly any man on the Pacific coast," said R. H. Armstrong, Pacific coast manager of the United Wireless Telegraph company, when asked concerning the assertions made in several British medical journals recently.

The European papers have been talking learnedly of "certain noxious physical effects produced upon wireless telegraph operators in the course of their employment." Armstrong says his experience in wireless supplies no evidence of any kind in support of the report of a medical officer in the French navy who attributes to the practice of wireless telegraphy the occurrence within his observation of various cases of "conjunctivitis, keratitis, corneal ulceration, leukoma, functional cardiac and other formidable maladies."

WITHSTANDS WIRELESS WAVES.

Armstrong tips the scales at not less than 250 pounds and is in the habit of enjoying three meals a day and several large cigars. He has been in the wireless business almost since the science was put to practical use. He has developed no disease.

"I cannot recall a single instance where one of our operators has been affected in any way harmfully by the Hertzian waves. As a matter of fact the pure ozone thrown off by the instruments when an operator is sending, is beneficial to the health of anyone. It has a peculiar smell and gives one a feeling of refreshment after a few deep inhalations of it are taken. It is on the same principle, on a small scale, that a thunder storm purifies the atmosphere. It is a well known medical fact that the ozone liberated into the air after a summer storm is of great benefit to mankind. For these reasons I fail to see how wireless waves could be other than helpful to those who are working with them."

STRANGE AILMENTS REPORTED.

It seems to have been a Frenchman who started the theory that wireless waves are harmful. Dr. P. Bellile, on board the Descartes, in the recent fighting off Morocco, reported that the Hertzian waves developed various maladies among the men. The eyes, according to this surgeon, were much affected. This was due, he said, to the

powerful ultra-violet rays, and the wearing of orange and yellow glasses was advised. Another ailment, the surgeon declared, was eczema. Painful palpitation of the heart, says Bellile, also was caused by wireless waves. Dr. Bellile attributes much of the nervous complaints now becoming rather common among naval men to the effects of wireless waves.

Operators on the Pacific coast who have been in the business constantly for the last eight or ten years have been asked if they have experienced any ill effects, but none has been found who can tell of any harmful effects from the wireless instruments.

The increased use of electricity on the Pennsylvania Railroad has led to a study of the dangers of handling live wires. To remove the wire from a body when no other means are at hand, a coat is placed under the wire, and lifted by the sleeves, to raise the wire off the body. This was found perfectly safe, even when the garment was damp. Experiments with fire streams showed that there was no danger of the current flowing down the stream of water even from a high-voltage line when the operator held the nozzle at a distance of between three and four feet from the wire. Experiments with chemical extinguishers showed that they were very dangerous where a solid stream was played on the wire.—*Scientific American*.

BOOK REVIEWS

HAND BOOK OF DISEASES OF THE RECTUM. By Louis J. Hirshman, M.D., Detroit, Michigan, U. S. A. Fellow American Proctologic Society; Lecturer on Rectal Surgery and Clinical Professor of Proctology, Detroit College of Medicine; Attending Proctologist Harper Hospital; Consulting Gynecologist, Detroit German Polyclinic; Collaborator on Proctology Physician and Surgeon; Editor "Harper Hospital Bulletin"; Chairman Section on Surgery Michigan State Medical Society; Ex-president

Alumni Association Detroit Medical College, etc. With one hundred and forty-seven illustrations, mostly original, including two colored plates. C. V. Mosby Medical Book and Publishing Co., St. Louis, 1909.

The author of this excellent handbook has happily given the general practitioner a practical epitomized discussion of rectal diseases and in a form

both attractive and immediately available. For one whose time is too limited for the reading of more exhaustive treatises, this work will fill a real want, and the clever application of local anaesthesia to the proctologic field will add to the interest the work will have for those to whom hospital facilities are wanting, and who are obliged to do the operating in their offices.

The chapters on Dysentery by Dr. John L. Jelks of Memphis and on Examination of Stools by Dr. George W. Wagner of Detroit add much to the value of the treatise.

The illustrations with which the work is embellished are quite adequate and for the most part are original. No work has appeared which merits a more cordial commendation for the field and province to which it is dedicated.

THE POPES AND SCIENCE. The Story of the Papal Relations to Science from the Middle Ages down to the Nineteenth Century. By James J. Walsh, M.D., Ph.D., LL.D. 400 pp. Price, \$2 net; postage, 15 cents extra. Fordham University Press, N. Y. City office, 110 West 74th street.

Dr. Walsh has told in this volume a surprising story. Nearly every one assumes that the Popes were somehow opposed to science. Dr. Walsh shows from documents and the most recent authoritative histories of science, and especially of medicine, that instead of opposing, the Popes were as judicious and beneficent patrons of science as they were of art. For seven centuries the Papal Physicians have been the greatest medical investigators and writers in medical science, and no other set of men connected by any bond in history, even the medical faculty of any of the large universities, can compare with them in accomplishment. They include the Father of Modern Surgery, the author of the first great dictionary of medicine, the author of the first treatise on gun-shot wounds, the Father of Comparative Anatomy, the discoverer

of the circulation of the blood in the lungs, the anticipator of Harvey in the discovery of the systemic circulation, one of the great founders of modern clinical medicine, while the Father of Modern Pathology was a personal friend of four Popes and always stayed at the Papal Palace when he visited Rome. For over two centuries the greatest medical school in the world was the Papal Medical School at Rome. Its greatest rival was at Bologna, which after 1512 was in the Papal States. Two other medical schools, Ferrara and Perugia, were also in the Papal Dominions. Until the beginning of the nineteenth century Italy was for the world the Mecca of graduate teaching in science just as Germany has been for the last half-century.

Thus we read in this work of a scientific and devout historian. No historical library will be satisfactory without this volume. Dr. Andrew D. White's work, "A History of the Warfare of Science with Theology in Christendom," presents the other side, but every person who desires a broad view of this question should read Dr. Walsh's interesting volume.

CATHOLIC CHURCHMEN IN SCIENCE. Second Series. Lives of Great Contributors to Science who were Catholic Clergymen. By James J. Walsh, M.D., Ph.D., LL.D., Dean and Professor of the History of Medicine and of Nervous Diseases at Fordham University School of Medicine. The Dolphin Press, 1305 Arch street, Philadelphia. 1909. Price, \$1 net; (by mail, \$1.07).

This second series of Catholic Churchmen who became distinguished in science, follows the lines of the author's well-known first volume. Probably the most striking chapter in this book is the life of Guy de Chauliac, the great Father of Modern Surgery. Surgery is supposed to be of only recent development. Many historians have insisted that the reason why there was no surgery in the Middle Ages was that the Church was opposed to it for various

reasons. This life of the Papal Physician and Chamberlain of three of the Avignon Popes, who wrote a great manual of surgery that for two centuries after his death was the most used text-book in the medical schools of Europe, is a complete contradiction of these curious historical notions. Guy de Chauliac operated on the brain, opened the thorax, sewed up wounds of the intestines, operated for hernia, and laid the foundation of the treatment of fractures, according to the principles that were to be used for the next four centuries.

MANUAL OF THE DISEASES OF THE EYE. For students and general practitioners by Charles H. May, M.D., Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department, Columbia University, New York 1890-1903; Attending Ophthalmic Surgeon to the Mt. Sinai Hospital, New York; Consulting Ophthalmologist to the French Hospital, to the Gouverneur Hospital, to the Red Cross Hospital, and to the Italian Hospital, New York. Sixth edition. Revised with 362 original illustrations including 22 plates with 62 colored figures. New York. William Wood and Company. 1909.

This is an ideal work for the general practitioner and the student. The illustrations are graphic and numerous, while the text is all that could be desired of a handbook. The book is a credit to the publishers.

THE LAW IN GENERAL MEDICAL PRACTICE. Some chapters in everyday Forensic Medicine. By Stanley B. Atkinson, M.A., M.B., B.Sc. of the Inner Temple, Barrister at Law, Justice of Peace for the County of London; Hon. Secretary of the Medico-Legal Society (London). Cloth, 239 pages. London and New York. Oxford University Press, 1908.

In his preface the author states that "the clergyman has been said to see men at their best, the lawyer to see men at their worst, whilst the medical adviser knows men as they are. . . . The three professions may be associated in solemn comradeship in the chamber of death, where what particularly concerns each separate adviser may have been unduly procrastinated until the moribund moments of life."

Much of value is given by the author in the way of practical cautions and precautions, on medical evidence and medical witnesses, on medical certificates, on the law of defamation, on negligence and malpractice, and similar topics. The style is good and the volume has much to commend it, particularly to those who would know more of the English law in medical jurisprudence.

INTERNATIONAL CLINICS. A quarterly of illustrated clinical lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners. By leading members of the medical profession throughout the world. Edited by W. T. Longcope, M.D., Oxford; John H. Massey, M.D., Philadelphia; A. McPhedran, M.D., Toronto; Frank Billings, M.D., Chicago; Charles H. Mayo, M.D., Rochester; Thomas H. Roth, M.D., Boston; John G. Clark, M.D., Philadelphia; James J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Richard Kretz, M.D., Vienna; with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipzig, Brussels, and Carlsbad. Volume II. Nineteenth Series, 1909. Philadelphia and London: J. B. Lippincott Company.

International Clinics, Vol. II, nineteenth series, contains more of interest than any volume of this work which has been recently issued. We notice contributions by such men as Bushnell of London; Carrière and Dumarest of Paris; Fletcher of Brighton, England; Williams of Edinborough; Fischer of New York; and Reik of Baltimore.

The article on page 153 by Dumarest, physician to the Hauteville Sanatorium of Paris, on Surgical Pneumothorax as a Treatment for Phthisis, is rather interesting in a way, as the subject is brought forward as a comparatively new treatment without any apparent credit being given to Dr. John B. Murphy, of Chicago, who, if the reviewer remembers correctly, was the first to introduce the subject. It is often the case that some line of treatment which has been adopted and then forsaken for a time returns to its proper place in therapeutic

tical procedures. It would therefore be more than interesting if this procedure, which has had its run in America, should be taken up abroad without due credit being given to the originator.

On page 167 is a very interesting article by Goodman of Philadelphia, working in the private laboratory of Dr. Musser, on "The Present Status of the Cammidge Reaction." This reaction, which has been practically neglected for several years, now, with some modification, seems to be about to take its place as one of the aids in the diagnosis of pancreatic infections.

Dr. Goodman gives the following conclusions: "The chemical nature of the crystals is not known, but recent investigations would seem to indicate that they are the osazone of glycuronic acid.

"Experimentally it has been shown that the reaction is almost constantly associated with lesions of the pancreas.

"The clinical value of the reaction seems assured.

"The test is not pathognomonic, but taken in connection with the clinical history and other laboratory findings, it is strongly suggestive of pancreatic disease."

The reviewer notices with pleasure that the present volume comes back to its original purpose of holding strictly to its field of lectures and clinical work, rather than trying to make a general review of medical literature, which is well covered by other works.

MANUAL OF THERAPEUTICS, Parke, Davis & Co., Detroit, Michigan.

This is an excellently printed and bound volume of over 600 pages. It contains a vast amount of valuable information. Two dollars would be very cheap for the work, yet we believe P., D. & Co. send it free to physicians on request. A therapeutic cyclopedia free seems incredible, but here it is.

TRANSACTIONS OF THE THIRD INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS. Held at the national palace of the City of Mexico, December 2, 3, 4, 5, 6, 7, 1907. Published and distributed under the auspices of the International Bureau of the American Republics, Washington, D. C. This book contains much information. Any physician can receive by writing a request to the above address. Essentials of Chemistry, Organic and Inorganic. Including Physics, Chemical Philosophy, Medical Processes, Toxicology, etc. By Lawrence Wolff, M.D., formerly Demonstrator of Chemistry at the Jefferson Medical College, Philadelphia. Seventh edition. Revised by A. Ferree Witmer, Ph. G., formerly Assistant Demonstrator in Physiology, University of Pennsylvania. 12 mo of 225 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$1.00 net.

This book thoroughly fulfills its purpose.

A MANUAL OF CHEMISTRY. A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A Text-book specially adapted for Students of Medicine, Pharmacy and Dentistry. By W. Simon, Ph.D., M.D., Professor of Chemistry in the College of Physicians and Surgeons, Baltimore, and in the Baltimore College of Dental Surgery; Emeritus Professor in the Maryland College of Pharmacy; and Daniel Base, Ph.D., Professor of Chemistry in the Maryland College of Pharmacy. New (9th) edition, enlarged and thoroughly revised. Octavo, 716 pages, with 78 engravings and 9 colored plates, illustrating 64 of the most important chemical tests. Cloth, \$3, net. Lea & Febiger, Philadelphia and New York, 1909.

This volume states plainly its aim, "A Text-book for Students," and it thoroughly achieves its avowed object.

This, the *ninth edition*, has been entirely revised. The article on Crystals has been extended, the article on Heat has been rearranged, the chapter on Laws and Theories in the part on Inorganic Chemistry has been entirely rewritten, the subject of Neutralization receives more extended treatment, the number of experiments and tests has been markedly increased, many new compounds of medical interest have been added to the part on Organic Chemistry, and the chapter dealing with Proteins has been entirely reconstructed.

In speaking of Organic Chemistry, the author says: It considers the substances formed in the living organism

and those compounds which were produced by their decomposition. It also considers many substances which were formerly believed to be produced exclusively but really can be formed artificially from inorganic matter or by direct combination of the elements. In 1828 Wöhler discovered that an aqueous solution of ammonium cyanite, on evaporation, yields crystals of urea. This was the first discovery that an organic compound could be formed from inorganic material.

An organic compound, according to modern views, is simply a compound of carbon generally containing hydrogen, frequently also oxygen and nitrogen and sometimes other elements. A better definition is: Organic compounds are compounds containing carbon in a combustible form. Another definition is: Organic chemistry is the chemistry of hydrocarbons, and carbon and hydrogen are to organic chemistry what the elements are to inorganic chemistry.

Coil-Oil, similar to natural gas, is a product of the decomposition of organic matter, most likely of the fats and oils of fish and other aquatic animals. In one of the suburbs of Los Angeles where oil is found in abundance an endless number of prehistoric skeletons have been unearthed.

RATIONAL IMMUNISATION IN THE TREATMENT OF PULMONARY TUBERCULOSIS AND OTHER DISEASES. Comprising Paper read before the Royal Society of Medicine, March, 1909, by E. C. Hort, B.A., B.Sc., M.R.C.P. New York. William Wood & Company. 1909.

This brochure of 75 pages comprises the paper read before the Royal Society of Medicine in March 1909, and at once takes issue with the generally considered opinion that the production and maintenance of immunity to infection are questions only of protection against bacteria and their products.

Chapter I considers the usual definitions of immunity and the surgical general and specific treatment of infections

and the part that hyperemia plays. Also is considered the artificial measures as artificial auto-inoculation, as labor, massage and the like inoculation of immune sera, vaccines and normal sera.

Chapter II is entitled the present position of hetero-inoculation. This word "hetero-inoculation" the author has coined on what he considers obvious analogies, to denote inoculation of immune serums, and of tuberculin and other vaccines from without.

He sharply criticises the narrow views of those who treat infections without taking into account the cytolysins, enzymes and other substances which nature uses, but who look solely to bacterial toxins.

Chapter III—the unreliability of the tuberculo-opsonic index—is a very fair presentation as is the following chapter, on the history, value and limitations of auto-inoculation, spontaneous and artificial.

Auto-inoculation means not only the formation of antibodies and the bacteriolyins in the body but also the manifold cell activity awakened by infections or toxic causes resulting in the lysis of cells, the liberation and formation of enzymes and the effects of these on the body and its reactions.

Temperature curves moulded from the evening fastigium are used as the method of estimating induction and inhibition of auto-inoculation. A responsive rise followed by a marked responsive fall is the criterion of successful inoculation.

The author thinks that lung areas of involvement in their repair or advancement follow the temperature curves.

He condemns giving tuberculin as being only part of an induction and maintains that the body alone can safely conduct its campaign. The method of auto-inoculation in pulmonary tuberculosis should consist in expiratory massage by the use of a spirometer,

used with best advantage in afebrile cases.

There however seems a weak note in the chain of argument in that while the author commends all measures, surgical, general and specific yet in tuberculosis of the lungs he decries tuberculin, the agent which in a large number of cases is the only safe one in awakening response as massage, labor and the other agents of auto-inoculation may be dangerous.

The conclusions on page 73 seem to us to be based on too small evidence, but the communication is a valuable one and we commend it to those who are interested.

W. A. E.

TREATMENT OF DISEASES OF CHILDREN. By Charles Gilmore Kerley, M.D. Professor of Diseases of Children, New York Polyclinic Medical School and Hospital, etc. Second revised edition. Octavo of 629 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1909. Cloth, \$5.00 net; Half Morocco, \$6.50 net.

The first edition of this book was reviewed in the *PRACTITIONER*, December, 1907, and this early second edition is an evidence of its well-deserved success; indeed, few books have appeared in recent years that have been as heartily received.

Careful revision has been made when necessary, and thirty-two pages have been added to the text.

It is at once seen that the book is the production of one who is fully conversant with the best pediatric thought, literature and practice, and one who has sufficient experience to offer to the reader the most approved plans and methods of treatment.

Much good judgment has been shown in not endeavoring to supplant any textbook or system, but in putting forth nearly six hundred pages of admirable thought upon therapeutics and treatment.

A chapter on vaccine therapy has been added: it is a little too short in its statements, but it is clear and of value

as a guide to the application of vaccines in infancy and childhood.

We desire to repeat all our words of commendation when reviewing the first edition of this book. It is a good book and should be in the hands of every practitioner of pediatrics or internal medicine.

W. A. E.

CLINICAL TREATISES ON THE PATHOLOGY AND THERAPY OF DISORDERS OF METABOLISM AND NUTRITION. Part VIII. Gout, by Prof. Dr. H. Strauss, Professor of the third clinic Royal Charity Hospital, Berlin. Authorized American Edition, translated under the direction of Nellis Foster, M.D., Associate Physician to the New York Hospital; Associate in Biological Chemistry, College of Physicians and Surgeons, Columbia University. Price \$1. New York. E. B. Treat & Co. 1909.

The author says it is very easy to detect an increase of uric acid in the blood. He says the thread test possesses high clinical value.

THE THREAD TEST as described by Garrod (Gout and Rheumatic Gout, p. 86, London, 1876) is as follows: "Take from one to two fluid drams of the serum of blood and put into a flattened glass dish; and to this add ordinary strong acetic acid, in the proportion of six minims to each fluid-dram of serum, which causes the evolution of a few bubbles of gas. When the fluids are well mixed introduce on two ultimate fibers, about an inch in length, from piece of unwashed huckback or other linen fabric." After standing from thirty-six to sixty hours the uric acid crystals may be seen by means of a microscope or strong hand glass. This test has fallen out of use, probably because it, along with the literature of gout of that period, has been superseded in a large degree by later research. This test, however, offers a ready and quick method of detecting an excess of uric acid in the blood, where the exact equipment only at the command of the specialist, the necessary blood serum is most easily secured by means of small cantharides plasters. Excluding interstitial nephritis

and the lucasmias where there is an increase of uric acid in the blood, this test has a great value in the diagnosis of those cases of gout that present no characteristic symptoms such as tophi. URIC ACID RETENTION. While we should not venture so far as to ascribe to uric retention the origin of every case of gout, we are not prepared to deny the possibility of such a process for many cases.

The author goes into practical details in regard to the treatment of gout and says: Without hesitation one may permit the majority of patients to eat white bread, rice, maize, farinaceous foods, tender vegetables, such as spinach, cauliflower, green peas, carrots, etc., and easily digested fruits may also be given. In constipation especially selection should be made of the amount, kind and form of the administration of the carbohydrates, as also for those who are inclined to diarrhoea. A diet of a predominating vegetable character should be assigned to those patients who have a highly irritable nervous system. The much recommended fruit cures (strawberry, lemon, and cherry cures) are in the main particularly good in combating the constipation, because in that condition there is special indication for taking a large amount of fruit.

APPENDICITIS AND OTHER DISEASES OF THE VERMIFORM APPENDIX. By Howard A. Kelly, M.D. With 215 original illustrations, some in colors and 3 lithographic plates. Philadelphia and London. J. B. Lippincott Co.

This book is a *resumé* of the more pretentious volume published in 1905 by the Saunders Company.

That work was a good storehouse of well-digested facts relative to the appendix, but it soon became evident to Kelly that a more compact volume dwelling with especial care on the practical side of the subject would better meet the daily needs of the great army of general surgeons throughout the country.

With this end in view the present edition is presented to the profession. We are greatly pleased to note that its title, too, is changed to Appendicitis and Other Diseases of the Vermiform Appendix.

For years the acute and chronic inflammatory lesions in and about this organ have occupied most of our attention, but we now recognize several other forms of disease of the appendix. Actinomycosis, like intestinal tuberculosis, shows a special predilection for the caecal regions, but the former is more apt to primarily *invade* the appendix and then attack the caecal structures.

Primary carcinoma of the appendix is now well recognized even at the early ages of life, so also do we see occasionally sarcoma and endothelioma in that organ. So also do we know of infection of the appendix by the amoebae dysenterica. The chapter on typhlitis is entirely in accord with recent views, and we are glad to see this term returning to the nomenclature. Typhlitis is undoubtedly a distinct entity and exists without disease of the appendix.

It would be well if the aphorisms in appendicitis for the general practitioner on page 255 could be transcribed on a card and presented to every practitioner in the United States. If followed a notable decrease in the mortality would soon become apparent.

Recognizing the fact that surgery and pathology are best taught by demonstration this book is liberally supplied with the most graphic illustrations that add great value to the text; their execution is most artistic and accurate. Kelly thinks that an illustration produced by the eye and hand of a trained scientific artist is vastly superior as a means of instruction to the best photograph and a study of his illustrations will soon convince one that he is correct. Certain it is that the magnificent illustra-

tions here presented add very much indeed to the value of the book.

It is a notable contribution and adds vastly to the working library of the busy surgeon.

We commend it without reservation.

W. A. E.

A TEXT-BOOK ON PRACTICAL OBSTETRICS. By Egbert H. Grandin, A.B., M.D., (Harvard.) Gynaecologist to the Columbus Hospital; Consulting Gynaecologist to the French Hospital; Associate Surgeon to the Woman's Hospital in the State of New York; late Obstetric Surgeon and Consulting Obstetric Surgeon to the New York Maternity Hospital; late Obstetrician to the New York Infant Asylum; Fellow of the American Gynaecological Society, of the New York Academy of Medicine, of the New York Obstetrical Society, of the Congress of American Physicians and Surgeons, etc. With the Collaboration of George W. Jarman, M.D., Gynaecologist to the General Memorial Hospital; late Obstetric Surgeon to the New York Maternity Hospital; Fellow of the American Gynaecological Society, of the New York Academy of Medicine, of the New York Obstetrical Society, of the Congress of American Physicians and Surgeons, etc. And Simon Marx, M.D., Formerly Surgeon to the New York Maternity Hospital, and formerly Lecturer on Obstetrics New York Post-Graduate Medical School; Fellow of the New York Obstetrical Society, of the New York Academy of Medicine, etc. Fourth edition, revised and enlarged. Royal Octavo, 538 pages. Extra cloth, \$4.50, net. Half-Morocco, \$6.00, net.

This edition contains a great deal of new matter both as regards the general advance in the knowledge of the subject and the special advances in the Surgery of Obstetrics.

The author has evidently kept in mind the desirability of presenting a practical book with, however, sufficient attention to the theory of the art to make the book valuable alike to the teacher and student. To the practitioner who wants concise advice in emergencies it will prove of material benefit.

They have presented only such data of an embryological or anatomical nature as are essential to the obstetric teaching, not wasting space on matters that one should know before they study obstetrics at all. The book in the main is a statement of facts and its teaching is distinctly clinical.

In the most questions, the opinion that preponderates is given. That is the author has endeavored to express the consensus of opinion and not unproven theories.

They feel that the results that are daily secured in general surgery through resort to timely operation are obtainable in obstetric surgery if the same principle be held in view, therefore they consider election to be the keynote of successful obstetric surgery.

This surgical section is further valuable as it practically represents the opinions of the authors after many years of unusual opportunities as teachers and surgeons. It is not padded with references and data. In this last edition the latest knowledge on bacteriology and the toxemias have been added and the entire subject of the surgery of labor and the puerperal state has been rewritten.

A number of new full page plates are added and such new engravings as really add to the value of the text, so that the book now contains forty-seven full page photographic plates, mostly direct from nature, and one hundred and sixteen illustrations in the text.

The book has gained a great deal by the addition of Dr. Simon Marx in its collaboration.

W. A. E.

ANGINA PECTORIS—DISORDERS OF RESPIRATION AND CIRCULATION. By Prof. Edmund von Neusser. New York. E. B. Treat & Co. 1909.

The translator calls attention to the fact that Angina Pectoris, because of its high mortality and sudden onset, and because, too, it has afflicted so many distinguished men, among whom may be mentioned Seneca, John Hunter, Arnold of Rugby, should be of real interest to clinicians.

Neusser's original views because of his great personal experience, should therefore receive careful consideration.

THE MATTER WITH NERVOUSNESS. By H. C. Sawyer, M.D., Member of the American Medical Association. Cunningham, Curtis & Welch, San Francisco and Los Angeles.

This is an interesting book by a San Francisco colleague. He states that nervousness is no merely functional trouble; there are no merely functional troubles; it is no mood of the mind; no motion of the nerves—nervousness, whether it be slight or severe, transient or permanent, is always a surface sign of deep-lying bodily deterioration that are real as the fracture of a bone.

And nerve cure is no marvel of miracle making for modern men; no mere parlor magic; no interesting diversion of a leisure hour; no poor comedy of errors—nerve cure is a struggle of stuff and kraft just as real, just as earnest, just as desperate sometimes as bone cure is.

The book is written on this platform and contains much of interest and value.

AN IDEAL HANDBOOK OF OBSTETRICS. By R. Gadowlader, A.M., M.D., San Fran-

cisco, California. Beautifully and profusely illustrated throughout. 370 Crown Octavo pages. Bound in flexible cloth. Price, \$2.00, net. Published by F. A. Davis Company, Medical Publishers, 1914-16 Cherry St., Philadelphia, Pa.

A clear, concise, practical, up-to-date and well-illustrated manual that should be of use to both student and practitioner. It should be popular as a textbook.

ABEL'S LABORATORY HANDBOOK OF BACTERIOLOGY. Translated from the tenth German Edition by M. H. Gordon, M.A., M.D., Oxon., B.Sc. London and New York, Oxford University Press. 1907.

This is certainly one of the best manuals on bacteriological technique which has thus far come off the press and the fact that a yearly edition has been printed in Germany since its appearance in 1898 is evidence of this fact. In addition to a general discussion of technique, the various pathogenic organisms are considered in detail. Milk, sewage, air, inoculation of animals, preservation of specimens are other topics considered.

MISCELLANEOUS—THERAPEUTICAL HINTS

THIRD GOLDEN WEDDING IN BULLARD FAMILY.

Three golden weddings have been celebrated in the Bullard family, of which the latest one is that of Dr. and Mrs. William B. Bullard, whose fiftieth anniversary of marriage was duly observed at the home of their eldest son, Dr. Frank D. Bullard, on West Eighth street, August 14. It was a joyous occasion. The bridegroom, who is 80, was seated beside his bride of 75, and the family gathering was complete with the presence of Dr. Frank Bullard and his wife, Dr. Rose T. Bullard, and their daughter, Helen; Mr. and Mrs. Will L. Bullard of Santa Ana; Charles T. Bullard and his wife, Dr. Margaret M.

Bullard, of San Francisco; Addison Olmstead and wife, with their two sons, Charles and Clay; Mrs. Talbot, mother of Dr. Rose T. Bullard, and Miss Kittie Barriere. The young-appearing bride and groom were the recipients of numerous gold coins and other valuable tokens in remembrance of the event, and the octogenarian groom proved his youth by dancing a cakewalk with his granddaughter, Helen. Dr. William B. Bullard has been in active practice of medicine more than fifty years, the last twenty-three years in Los Angeles. He may be classed among the veteran physicians of the city. I call attention to this golden wedding because it is the third consecutive one in the family in each of which anniversary Dr. Bullard

participated. The first was at that of his grandfather, Jonathan Bullard VI., who lived to enjoy fifty-two years of married life; the second was at his father's golden wedding, Jonathan VII., who had fifty-five years of married felicity. The sixth Jonathan Bullard, by the way, with his three brothers, served in the Revolutionary War, and were all four at the surrender of Cornwallis at Yorktown. I do not blame my friend, Dr. Frank T. Bullard, for being proud of this record of his family. There were seven Jonathans in successive generations, by the way. Dr. William B. Bullard is fond of his profession, and has always kept in close touch with the medical fraternity. He has been made an honorary member of the Penobscot Medical Association of Bangor, Me., with which he formerly affiliated, and has been elected to honorary membership in the Southern California Medical Association and in the Los Angeles Medical Society. Dr. and Mrs. Bullard were married at Foxcroft, Me., August 14, 1859. My compliments to them.—*The Graphic*, August 28, 1909.

"MR DOOLEY" ON PSYCHOTHERAPEUTICS.—Chicago, October 16, 1908. Mr. Editor:—"Have ye read of this new thing they call sycotherapewticks that's privalint in Boston?" asked Mr. Dooley, as he laid aside the daily paper and turned to Mr. Hennessy.

"No. Is is ketchin?" demanded Hennessy, anxiously.

"Sure, it's not a disa-ase at all, at all," replied Mr. Dooley in his most professorial manner. "It's a new rimidy."

"Glory be!" exclaimed Mr. Hennessy. "It it ha-ard ter swally?"

"Faith, it isn't like Father John's medicine or anny iv thim things," went on Mr. Dooley. "It's this way: Boston is a sllathe iv moind, an' whim anny wan sickens there it's th' moind that gits attintion. F'r instance, whim little Indicut begins ter pine away an' th'

nosepiece iv his spees has ter be thrimmed with fur ter keep th' metal fr'm pressin' on his poor little brain, an' he spinds his nights huntin' th' snark an' ither man-a-a-tein's game in th' heart iv darkest A-africa with Teddy Rosenfelt, thin he's ripe for sycotherapewticks."

"It's like easter ile, thin," ventured Mr. Hennessy.

"Ye talk like an omadhaun!" snapped Mr. Dooley, impatiently. "It's nawthin' iv th' koind. No, they call in th' pasther iv th' church. 'Ah, me little man, it's obssided ye are,' sez he. 'It's a bad case iv th' dissoshiashun iv th' persona-ality ye have,' sez he, an' be a quick pass iv th' hand he lands little Indicut inter a state iv hipno-sis which is th' thrade name f'r a kind iv near-slap. In this condition the poor little divil is completely at th' good

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man's mercy, an' th' secret wurrakin' iv his moind is as clear ter th' pasther as th' spring waters ye see advertised in th' magazines—if ye believe th' adverteisements. In less time than it takes ye ter impty a can iv beer, Hinnessy, th' boy's moind is spiritooly dhry-clinsed iv its obsessions and th' boy comes back ter airth or as near there as they iver get in Boston. 'Lave him take an exthry coorse in thransindintal ferlosophy,' says th' good man in partin' fr'm th' overjoyed parents. 'I'll kape his attintion off iv himsilf. But be careful how ye expose him ter th' frish air.'

"It bates th' devil what leps science is makin'!" exclaimed Hennessy, when his powers of speech returned.

"An' they threat th' grown-ups th' self-same way," went on Mr. Dooley, full of his subject and unmindful of his friend's comment. "Whin wurruk is slae' at th' foundhry and th' father iv th' fam'ly doesn't know where th' price iv th' next pot iv baked beans is comin' fr'm, ter say nawthin' iv th' rint an' th' other lux'ries iv life, he begins ter recognize th' simtims iv a refracthry subconshus—such as cowl'd feet, an' an inability ter look th' landlord an' th' bo-otcher straight in th' face—an' drops in ter th' sycotherapewtick clinic fer afthernoont tea and ither threatment."

"An' how does that help him on th' rint an' th' bo-otcher question?" asked Mr. Hennessy, critically.

"That's simple," replied Mr. Dooley. "He goes away full of tea, angel cake, an' beyewtiful simtimints that inable him ter rise above his troubles, and whin th' graspin' landlord an' th' bo-otcher with th' Armourclad hea-art begin ter do sintro duty before his dhoor in company with th' ither wolves, th' poor man retires inter th' subcellar iv conshusniss an' puts up th' amnashia sintners, which is a sure proteshum agin painful mimries."

"Wonderful! wonderful!" ejaculated Mr. Hennessy.

"Th' same threatmint applies ter all th' ither human ills," continued Mr. Dooley. "If th' hea-art gets inter a frolicksome mood an' takes ter skippin' beats up an' down th' spine; if th' stummick contrac's th' playful habit iv telescopin' itsilf inter th' dhudeenum; if th' rest iv th' organs refuse ter wurrak undher union rhules, it's sycotherapewticks that's needed."

"But what does sycotherapewticks really mane?" asked Hennessy, with a dazed expression.

"That's what no wan seems ter clearly undherstan'," replied Mr. Dooley. "As near as I can make out, it's a species iv spiritool flim-flam. We are all born in orig'nal sin. Hinnessy, an' th' devil's in iv'ry wan iv us. Ye may think ter dhrive him out be baptism, but don't fool yersilf. He's still with ye in as manny dif'rnt forms as ye have fingers an' toes. That's why ye suffer fr'm a mooltiplica-ation iv th' persona-ality. Whin th' ould boy gets inter yer liver, ye're wan feller, an' whin he sthrikes yer big toe in th' shape iv th' gout ye're another. Ye know yersilf, Hinnessy, that whin ye go home an' swear at th' ould woman an' caress th' childer with th' wooden ind iv th' broom, ye're not th' same ja-anial spirit ye are whin ye're sthandin' up ter th' bar an' somewan else is orderin'. It's th' devil that's at th' bottom iv all our sufferin', an' it takes th' pasther an' his sycotherapewticks ter dhrive him out."

"An' are there no more reg'lar doctors in Bosten like ould Doc Sullivan here?" asked Hennessy.

"Very few, I hear," replied Mr. Dooley. "Them as haven't made their forchum be thrimmin' off the appendix are now sellin' fairy stories written be spiritool sycollargists."

"But even still I don't clearly undherstan' th' meanin' iv sycotherapewticks," protested Hennessy.

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Los Angeles, Cal.

"That's just the crooks iv the situashun, as they say in argymints. Ye are in the same box as th' pasthers, Hinnessy."

"An' ye say that Boston is on'y a shate iv moind?" queried Mr. Hennessy.

"I do," affirmed Mr. Dooley.

"Thin it must be an awful bad shate ter be in," finished Hennessy, sententiously.

Very throoly yours,

J. W. C.

(With humble apologies to Mr. F. P. Dunne.)

--*Boston Medical and Surgical Journal.*

Homer, Job, Aeschylus, Isaiah, Ezekiel, Lucretius, Juvenal, Saint John, Saint Paul, Tacitus, Dante, Rabelais, Cervantes, Shakespeare—that is the avenue of the immovable giants of the human mind.—*Victor Hugo.*

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PLENTY GOOD ENOUGH.

Aunt Chloe was burdened with the support of a worthless husband, who beat her when he was sober, and whom she dutifully nursed and tended when he came home bruised and battered from a fighting spree.

One Monday morning she appeared at the drug store and asked the clerk for "a right pow'ful linerment foh achin' in de bones."

"You might try some of this St. Peter's Prescription, Auntie; it's an old and popular remedy, cures cuts, bruises, aches and sprains. One dollar the bottle. Good for man and beast."

Aunt Chloe looked at the dollar bottle and then dubiously at her flat purse. "Ain't yo' got some foh fifty cents?" she ventured. "Some foh jes-on'y beasts. Ah want it foh ma ol' man."—*January Lippincott's.*

Dr. W. C. Abbott of Chicago wisely says: "When fecal matter is retained beyond the normal time in the large intestines, the generation of toxins goes on unchecked by any of the hindrances which nature supplies in the smaller bowel. These toxins are absorbed into the blood and thus the individual becomes the ready subject of an infectious attack. The most important rule in the prophylaxis of acute infectious and chronic maladies is that of keeping the alimentary canal clear and aseptic.

CHRONIC CYSTITIS WITH ALKALINE URINE—If the urine is alkaline nothing gives so good results in chronic cystitis as benzoic acid, given in capsules of five grains every three hours, in connection with teaspoonful doses of sanmetto. If an antiseptic is desired give salicylic acid internally in five-grain doses, at intervals of from two to four hours, or if contra-indicated, then use boric acid in powder form ten to twenty grains instead.

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DR. WALTER LINDLEY, Editor.

DR. F. M. POTTENGER, DR. GEORGE H. KREBS and DR. JOHN W. FLINN,
Assistant Editors.

DR. H. BERT ELLIS, DR. GEO. L. COLE and DR. W. JARVIS BARLOW,
Associate Editors.

SOME SUGGESTIONS AS TO DIET IN TUBERCULAR PATIENTS.*

BY CHAS. C. BROWNING, M.D., MEDICAL DIRECTOR, POTTENGER SANATORIUM, MONROVIA,
CALIFORNIA.

The question of diet in the treatment of tuberculosis is far from being settled, and never can be settled so as to obtain the best results by a routine feeding. The prescription of diet is, I believe, one of the most, if not the most difficult problem which we have to meet. There is no best diet for all cases of tuberculosis, nor is there any best diet for any one case of tuberculosis during the entire course of the disease. Individualizing is absolutely necessary to best success. The feeling of patients en masse can only attain a measure of success which cannot but be disappointing to the physician and unsatisfactory to the patient.

The patient's former habits and tastes, as well as present environment and existing conditions, must be considered. Complications tuberculous and non-tuberculous also enter as factors. There may be tubercular infection of the organs of digestion, assimilation,

secretion and excretion. The tubercular patient may be, and frequently is, suffering from other conditions of malnutrition, indigestion, assimilation or excretion, which may have predisposed to tuberculosis by reducing the powers of resistance to the tubercular infection, or from conditions which, although not tuberculous, are the result of tubercular infection of the system and the resulting toxins.

With this suggestion of the varying conditions it must be apparent that each case must be carefully considered from the beginning and as carefully watched during the progress of treatment, irrespective of the disease. Complications which are tubercular, or due to systemic infection, become more frequent as the stage of tuberculosis advances.

The numerous articles which occurred in lay and medical journals a few years since led many to believe that the mat-

*Read before the Los Angeles County Medical Society, May 21, 1909.

ter of diet in tuberculosis is easy, that quantity of food was of prime importance and that the proteids, especially milk and eggs, should be taken in quantities only limited by the capacity of the patient to swallow the same. Such unreasonable methods of feeding could not long survive, and yet there was a reason why it existed at all. That a certain class of tubercular patients lose their appetite because of the toxins due to tuberculosis when the digestive system is in condition to digest and assimilate food which they will not take with a relish, is true; and under such conditions persons may take food for a limited time against their desire, and improve. It was the observation of this, together with the belief that a gain in weight means progress toward recovery, which led to the adoption of this form of diet, which became a fad and was carried too far even in cases to which it was adapted. Because of becoming a routine measure and the tendency to treat patients en masse, and not to individualize, it was applied to unsuitable cases. The dictum, "Make your patient fat and the tuberculosis will get well," is erroneous, and has produced much harm by stimulating to "forced feeding." A moderate gain in weight in patients who are below their normal, until they reach what would be their normal under the given conditions, is desirable.

There is nothing specific in diet for the cure of tuberculosis. It is one of the means, and a very important one, of raising or maintaining the condition of the individual to the highest possible degree of resistance, and should be directed with this end in view. Whenever food is taken in such quantity and quality as to throw an extra stress upon the organism it ceases to be of greatest value. The proper diet then for the individual patient is of the quantity and

quality which will maintain the organism at the highest possible degree of resistance with the least effort on the part of the organism. The diet in uncomplicated cases should be a well-balanced mixed diet, in quantity and quality as nearly as possible as will maintain the individual in good health, with such changes as may be called for by the extra stress of the disease and the changed habits of life and environment of the patient.

Diet should consist of proteids, fats and hydrocarbons well balanced. An excess of proteids has frequently been advised, and generally by the free use of meat, eggs and milk, which are the most readily digestible and assimilable forms of proteids. Proteids from vegetables act well, but the bulk of food required to be taken to secure a given quantity of the proteids is much greater. Up to a certain degree this is probably no disadvantage; an entire diet of highly concentrated food is undesirable except under certain peculiar circumstances, and it is best to provide needed proteids from both animal and vegetable sources. An excess of proteids throws a tax on the organs of elimination which cannot be too long maintained, and with few exceptions, and for a comparatively short time, an excess of proteids over the normal diet should not be used.

By the education of the masses through articles in the popular press, and directions frequently given by physicians, we found more frequently up to a year or so ago than now, that patients coming to us had many of them already been engaged in forced-feeding and came into the sanatorium with the idea that they must either continue forced-feeding or should at once begin it.

The following from the report of Dr. J. E. Pottenger, Chief of Laboratory, is of interest in this connection:

COMPARATIVE EFFECT OF DIET UPON THE
ELIMINATION OF INDICAN.

The monthly indican elimination from 86 patients was observed 2 to 7 times from each patient. The quantity of indican observed in 24-hour specimen was then compared with the average quantity for the succeeding months.

This led to the discovery that many patients were eating to excess, and a restricted diet was instituted. Tables I and II respectively below give the general averages of the averages of the examinations for indican in the 86 patients and of the same in 24 patients examined similarly after the restricted diet was instituted. The technic employed in every case consisted of equal quantities from a mixed 24-hour urine and Obermayer's Reagent (Chloroform Extract and decolorization by a standard potassium chlorate solution). The numbers in the tables represent the total number c.c. of potassium chlorate solution required to decolorize the 24-hour elimination of indican:

TABLE I.

BEFORE REGULATION OF DIET, APRIL, 1907-
JANUARY, 1908.

	Entrance	Average thereafter	Ratio.
Patients examined, 24	58 cc	51 cc	.88
Indican increased, 12	50 cc	57 cc	1.14
Indican decreased, 12	66 cc	44 cc	.66

TABLE II.

AFTER REGULATION OF DIET, DECEMBER,
1907-MARCH, 1908.

	Entrance	Average thereafter	Ratio.
Patients examined, 86	37 cc	47 cc	1.27
Indican increased, 54	30 cc	52 cc	1.73
Indican decreased, 32	52 cc	39 cc	.75

"Considering the fact that these tables are made from all patients, whose urine had been examined at least twice, and that no selection was made, we have here important evidence of the value

of routine determinate of indican elimination in the tuberculous subject."

These cases showed that patients when left to select a diet entirely from a mixed diet, with the idea that a great amount of proteids should be consumed, were developing intestinal fermentation and throwing corresponding strain on the organs of elimination which were accompanied by corresponding symptoms of intestinal disturbance. With the reduction of proteids the indican in the urine declined, the intestinal disturbance was much less, and several who were not doing well otherwise made corresponding improvement. It not infrequently happens that patients who are not improving begin to do so, and gain weight with the reduction of quantity of food.

Our practice is when a patient comes under treatment to keep a record as nearly as possible, of the amount of each article of food which they eat. This is kept for several meals and is brought in daily. In this way we get an idea of the articles which the patient relishes and suggest changes along these lines as far as possible, for no doubt food which is eaten with a relish is more readily digested than food which is taken with indifference.

Drs. Bardswell and Chapman have recently (1908) published in "Diets in Tuberculosis" a summary of the results of observations on two hundred patients treated upon weighed diets which are valuable. They suggest—

GENERAL PRINCIPLES FOR THE CONSTRUCTION OF DIETS FOR CONSUMPTIVES.

1. The physiological diet (viz, the diet which contains the exact amount of carbon and nitrogen necessary to balance the amounts of these substances excreted) for every individual when in normal health and at physiological rest (when not engaged in muscular work) should first be ascertained,

and this physiological diet should form the basis of the diet prescribed for treatment.

2. The amount of proteid in the physiological diet should be increased by 30%, and this increase should be maintained until the disease is obsolete.

3. If the patient is under weight, the physiological diet should also be increased 30% in the energy value either in the form of fats or carbohydrates, or partly, in each. This increase should be maintained until the weight becomes stationary at a point a few pounds in excess of the patient's highest known weight before becoming infected with tuberculosis. (I should prefer at about the probable normal weight, age, family habit, environment and occupation considered.)

A decrease of 15% may then be made, and the diet, thus altered, should be continued until the disease is obsolete.

4. The meals must not be too bulky, especially in the case of patients with poor digestions, but rather inclined to concentration, so as to give the comparatively large amount of nourishment in a but slightly increased bulk of food-stuffs.

In the case of the consumptive working classes, this last principle does not apply, since they are accustomed to taking diets of large bulk.

5. The meals should be given at considerable intervals. They should be well cooked and as varied as possible.

PRACTICAL ILLUSTRATION OF THE APPLICATION OF THE PRINCIPLES OF DIET-ING JUST DESCRIBED.

Supposing we have to deal with a consumptive man of average physique, 5 ft. 6 in. in height, weighing, when in normal health, about 10 st., (140 pounds), a clerk by occupation, with recent and somewhat extensive infiltration, involving both lungs with some fever, a considerable degree of

emaciation, probably some 18 lb. below his normal weight. We know that a diet of the following value was physiological or adequate for him when in normal health:—

Proteids	Fats	Carbo- hydrates	Total calories
120	110	250	2540
grammes	grammes	grammes	

For his treatment we should increase this diet 30% in its proteid value and 30% in its total Calorie value. The diet would then have the following nutritive value:—

Proteids	Fats	Carbo- hydrates	Total calories
155	160	275	3250
grammes	grammes	grammes	

It is important to remember that in every case the bases for our consumptive dietaries are the diets which are physiological for various individuals when in normal health and at physiological rest, *i. e.*, not engaged in muscular work. When at work, a laborer weighing about 140 lbs. requires a diet of much larger Calorie value than a clerk of the same weight, but when at rest the diet of the clerk would do for both of them. The diet then which we would prescribe to both these individuals, if they became consumptive, would be the same, viz, one containing 155 grammes of proteid and 3250 Cals. A diet of this nutritive value is represented by the following:—

	Amount (oz.).	Proteid.	Fat	Carbo- hydrate.
Milk.....	60	57 gms.	70 gms.	87 gms:
Bread.....	6½	16	2	88
Butter.....	1	—	32	—
Cream.....	1	1	6	—
Fish.....	4	20	10	—
Meat.....	6	44	22	—
Milk pudding.....	4½	9	16	50
Suet or sponge pudding.....	3½	—	—	—
Potatoes.....	5	1	—	30
Egg.....	one	6	4	—
Stewed fruit, green vegetables, soups &c., from time to time.....	q.s.	1	1	7
Cake.....	1	1	2	12
Totals.....	—	155	160	275

Total Calorie value, 3250.*

In the above table the values of the various food-stuffs are calculated from the tables of percentage composition of Atwater (U. S. Department of Agriculture, Bulletin 28) and in the case of the cooked foods from original figures. No allowance is made for bone in the above amounts; e.g., the 6 oz. of meat contains no waste, and the 2 oz. of fish is without bone and skin.

This dietary, in practice, may be conveniently given in the following way:

DAY'S MENU.

BREAKFAST.

Milk, 1 pint (usually coffee added to flavor), 2 breakfast cupfulls.

Toast, 2 fairly thin slices, or 4 of the ordinary triangles.

Butter, $\frac{1}{2}$ oz. A piece the size of a large walnut.

An Egg.

Some meat, 1 oz. An ordinary-sized helping; or a herring.

If porridge were taken it would not be necessary to take so much toast.

II A.M.

$\frac{1}{2}$ pt. of milk. A tumblerful.

LUNCH.

Milk, $\frac{1}{2}$ pt. A tumblerful.

Bread, 2 oz.

Butter, $\frac{1}{2}$ oz.

Fish, 2 oz. or an ordinary-sized helping.

Potatoes, $2\frac{1}{2}$ oz. Two potatoes the size of an egg.

Green vegetables and stewed fruit in ordinary amounts, if liked.

Meat, $2\frac{1}{2}$ oz. A large helping, but

*Heat values, i. e. the amount of heat evolved by the combustion, complete oxygenation, of one gram of the substance, for the three main classes of food-stuffs are as follows:

Fats.....	9.3	calories
Proteins.....	5.5	" or
Corrected.....	4.7	"
Carbohydrates..	4.0	"

Proteins have part of their molecules oxydized only to urea which has a heat equivalent of 2.5 calories. Each gram of protein gives rise to 0.3 gram of urea, so that 0.8 calories must be deducted to give true value of heat to body.

varies much in appearance according to the variety.

Milk pudding, 5 oz. Half a tumblerful or a good plateful.

TEA.

Tea, a slice of thin bread and butter (1 oz.) and a piece of cake (1 to $1\frac{1}{2}$ oz.)

DINNER.

Milk, $\frac{1}{2}$ pt.

Bread, 2 oz.

Butter, $\frac{1}{2}$ oz.

Fish or entree, 2 oz.

Soup, green vegetables, and dessert in ordinary amounts, if liked.

Meat, $2\frac{1}{2}$ oz.

Boiled pudding, 3 oz. A good helping.

Potatoes, $2\frac{1}{2}$ oz. Two potatoes the size of an egg.

At bedtime, $\frac{1}{2}$ pint of milk.

If the above dietary is compared with that taken by the average man in ordinary health, it is seen that there is no very great difference between them; the addition of two pints of milk is perhaps the most noticeable feature. It is essential, of course, that the diet be varied and well cooked."

It is not necessary to work out the exact diet of each individual in exact amounts, as several factors will enter in the individual cases which will modify them. However, they form a working basis. I do not believe it best, except in exceptional cases, to make the increase of 30% and for that reason in most cases I should omit the food at 11 a.m., *Tea* and bedtime.

I believe that only in exceptional cases food should be allowed between meals. The stomach needs the rest. Food should always be well chewed and no porridges or breakfast foods should be taken which are not of consistence to demand chewing; or toast, crackers, beaten biscuits, pilot biscuit, or similar food, should be eaten with it.

Weather temperature should modify

the amount and character of food taken.

A quantity of food is used in heat production. In cold weather more is needed, in warm weather less. This is regulated in the well by variation of appetite. It should not be disregarded in the tubercular patient. The same observations are applicable as regard to weight, which in health increases in cold weather and decreases in warm weather.

Fever does not necessarily indicate a reduction of diet in tuberculosis. Frequently, when the temperature is due to a tubercular infection, and not to disordered digestion, a reasonable amount of food taken even without relish will result in an increased appetite, reduction of fever and improvement in the general well-being of the patient. Should improvement not occur in a short time the diet should be reduced or cease to be pushed, especially with the first signs or symptoms of gastrointestinal disturbance.

Time prevents further discussion of complications which are influenced by diet. Among these may be mentioned gastro-enteroptosis, dilatation of stomach, constipation, diarrhoea (tuberculous and non-tuberculous), condition of kidneys (tuberculous and non-tuberculous), likewise those of the liver, and diseases of the circulatory system.

In conclusion I wish to state that on receiving a diet list from an ambulatory patient I more frequently have occasion to advise a reduction in the quantity of food taken than to advise an increase. Frequently where patients are not doing well, by reducing the diet judiciously, they begin to feel better and gain in weight. A good rule is, that a patient should eat of a mixed diet *as little as possible to maintain their strength and regain or maintain them at their normal weight.* Gain in weight, if by forced feeding, is no indication of improved tubercular condition.

SURGICAL TREATMENT OF GASTRIC AND DUODENAL ULCER*

BY C. D. LOCKWOOD, M.D., PASADENA, CAL.

One cannot hope to say much that is new upon the subject of my paper—but when such rapid development is taking place in gastric surgery it is well to review our knowledge of the subject, to fix more firmly in our minds the fundamental things and perchance learn something new.

I shall consider the subject under the following heads:

I. Indications for Operation. These must be determined by the careful study of each case with an internist.

1. The only cases requiring an emergency operation are those of acute perforation, with extravasation of stomach or bowel contents into the free peritoneal cavity. Here mortality rises with each hour of delay.

In addition to acute perforation we

have the following indications for surgical interference.

2. Cases of repeated severe hemorrhage after failure of medical treatment.

3. In all cases where symptoms persist after four weeks of skillful medical treatment (Leube).

4. In chronic cases with stasis—i. e., if stomach fails to empty itself after seven hours (Billings). Perforation is of much greater frequency than we have heretofore supposed. More careful abdominal diagnosis has revealed many cases of perforation in the past five years.

English surgeons report a large percentage of perforations in gastric and duodenal ulcer. Moynihan's estimate is 15 to 20 per cent of all ulcers. Leuder, a German surgeon, estimates only 1 per

*Read before the Los Angeles County Medical Association, March 5, 1909.

cent of perforations for Germany. This great difference may be accounted for by the poorer nutrition and lessened tissue resistance of the poorer English classes.

Mayo reports 272 operations for duodenal ulcer with 66 perforations. Of these 16 were acute, 13 subacute and 37 chronic.

The indications of acute perforation, demanding prompt operation, are:

1. Shock. 2. Great pain. 3. Board-like retracted abdomen. 4. Tenderness and rigidity in the epigastrium. 5. Costal breathing. Later we get peritonitis, following a period of improvement and an increasing leucocytosis.

II. Medical Versus Surgical Treatment:

It is difficult to accurately estimate the value of medical treatment as compared with surgical. Accurate statistics of large series of cases are not available, and moreover many cases treated medically and discharged as cured, are later operated upon or die of complications.

Moynihan and Robson estimate 20 per cent mortality under medical treatment.

In addition to this there are many grave complications incident to medically treated cases. Among these are perforation, hemorrhage, pyloric stenosis, adhesions, subphrenic abscess and subsequent carcinomatous change, which ultimately bring the mortality up to 50 per cent.

Efficient medical treatment will reduce this mortality perhaps 10 per cent. Paterson of England has tabulated 72 cases, treated medically. These statistics were compiled two years after the discharge of patients, during which time they had received no medical treatment. Of these 72 cases but 19 were permanently cured, 7 were doubtful, 46 were still suffering, and only 27 per cent were permanently cured.

The largest number of cases treated medically which have been tabulated is

1203 (Sears, Boston). The final results in these cases were: 52 per cent cured, 40.8 per cent failure.

Surgical Treatment: The largest and most reliable table of cases operated upon in all stages, that I have found, is that of Deaver in his recent book, "Surgery of the Upper Abdomen."

He tabulates 1650 cases from different operators, with a mortality of 5.72 for the entire series: end results have been traced in 897 cases; of these 758 were cured, giving a percentage of 83.67 cured cases.

Conclusions as to medical and surgical treatment:

Simple ulcer very properly belongs to the medical man and if treated efficiently will yield 80 per cent of cures.

All chronic and complicated cases yield poor results when treated medically and belong to the surgeon.

Careful diagnosis based upon the pathology taught in the operating room will alone serve to properly select cases for the respective methods of treatment.

III. Method of Operation: This will depend upon several factors:

1. Condition of the patient.
2. Location of the ulcer.
3. Complications.

Gastro-jepenoanastomy—This is the most generally useful operation, but is not a cure all.

In acute recurrent hemorrhage, the ulcer must be ligated en masse or excised before gastro-enterostomy is done. For all ulcers in the region of the pylorus and especially when stenosis and stasis are present, this operation gives relief.

The posterior, no loop operation should always be done unless adhesions prevent.

Gastro-duodenostomy. Finney operation. This operation is indicated when ulcer near the pylorus and where pyloric spasm is a pronounced feature with little induration or stenosis.

Gastric Resection. The operation of partial gastrectomy or excision of the

ulcer bearing area has been advocated by Madyl, Rodman and others. Its mortality is much higher than the foregoing operations and the conservative opinion is in favor of limiting this operation to cases of gastric ulcer that give evidence of malignant change.

Ulcers well removed from the pyloric region, on the lesser curvature, are most suitable for excision.

Conclusions—From a survey of the most recent statistics available it would seem that surgical treatment offers the best chance for cure in gastric and duodenal ulcers.

Cases which do not yield promptly to medical treatment should be given the benefit of surgery. All cases of perforation should be operated immediately.

REPORT OF CASE OF RENAL CALCULUS; OPERATION; PULMONARY EMBOLISM.*

BY ROSE TALBOTT BULLARD, M.D., LOS ANGELES, CALIFORNIA.

Mrs. A. B., of Fullerton, was sent to me by Dr. G. W. Lasher, October 4, 1907, for cystoscopic examination. She weighed 210 pounds, had three children and was always in good health until the birth of her first child, when a mild infection occurred, lasting three weeks. After this she was never free from backache just below the waist-line until during her second pregnancy, two years later. At the fourth month, she was suddenly taken with an intense pain in the left side and a few hours later passed from the urethra a stone the size of a pea, after which the backache disappeared.

Ten months later she had another attack and again in a year, after which they occurred more frequently and always on the left side until July, 1907, when a very severe attack took place, lasting three weeks, and three times during this one the colic was on the right side, sometimes beginning on the right just as it ceased on the left.

At this time Dr. Lasher was called in consultation by Dr. H. A. Johnston of Anaheim. The severe attacks would last from one to three weeks with colic recurring at intervals, the temperature ranging as high as 104° with the pulse at 140. They would end with a discharge of pus varying in amount with the length of the attack, and the urine would clear up completely in a short

time, when she would be free from any aching or pain.

She came to me at one of these intervals. Cystoscopic examination was negative, the ureteral openings appearing normal. The Harris segregator was used and in twenty minutes the following amounts were obtained:

Right—18 c.c., alkaline. Few pus and blood corpuscles; no epithelium. Urea .85 per cent.

Left—11 c.c., alkaline. Few pus and blood corpuscles; epithelium. Urea .50 per cent.

On Dec. 10, I catheterized the left ureter and secured in ten minutes 4 c.c., which was compared with the mixed urine of a 24-hour specimen (2 liters), being similar in every respect, except that the urea from the former was .65 per cent and from the latter 1.25 per cent.

An X-ray examination made by Dr. A. Soiland at this time was negative.

Dec. 24, she had very severe colic on the right side and passed two small, irregularly shaped stones; this attack was accompanied by high fever and lasted a week. As soon as she was able to come in, Jan. 8, 1908, I catheterized the right ureter, obtaining in six minutes 8 c.c. of urine, which showed a few pus cells, but was otherwise normal.

Jan. 18, a severe colic occurred on the left side, and on the 23rd another more

*Read before the Southern California Medical Society, Dec. 3, 1908.

severe, followed by a discharge of pus which in specimen brought amounted to one-half by bulk after standing twenty-four hours.

As symptoms indicated trouble on both sides and the examination of the separated urines in the intervals showed no appreciable difference except that the urea percentage was always a little lower on the left side, operation was not advised, and she remained under Dr. Johnston's care, taking urotropin, piperazin, etc.

She was not seen again until Oct. 30, when she reported having had two very severe attacks, one lasting three weeks, and numerous lighter ones. She now wished the right kidney catheterized preparatory to undergoing treatment from a homoeopath. As urine was clear and without albumen, I asked her to return during an attack, which conveniently appeared in a few days.

She went to the California Hospital the evening of Nov. 3rd in severe pain, but was relieved by a hypodermic injection of $\frac{1}{2}$ -grain morphine. The urine showed large amount of pus and 1.5 per cent. of albumen, while the urine catheterized from the right ureter Nov. 4th, gave only a trace of albumen and no pus.

Operation was then urged and was performed Nov. 11 by Dr. Lasher, assisted by Drs. F. D. and Rose T. Bullard and Nannie C. Dunsmoor. The kidney was found very adherent and was with difficulty freed so as to be brought out of the wound. It was not enlarged and on palpation no stone was detected, but the symptoms demanded further exploration and an incision two inches in length was made through the kidney parenchyma just posterior to the median line. On digital exploration a small stone was found free in the pelvis; the calices were palpated, but nothing was found. The kidney was closed with deep mattress sutures of catgut and the edges coaptated by a superficial layer. The kidney was returned, some

deep catgut sutures placed and the whole wound closed with silkworm, cigarette drains being placed at the upper and lower angles.

The patient stood the operation well; the temperature ranged between 100° and 102° , and the pulse from 120 to 128 the first 4 days when they gradually diminished to normal by the 8th day. The cigarette drains were removed on the 3rd day, but as there was a free discharge of their consistency and abdominal wall was very fat, drainage was kept up by gauze in the lower angle. Methyene blue given internally did not show in the discharge. After a normal temperature and pulse for 48 hours, on the 10th day, a pain appeared in the right lower costal region which in a few hours became agonizing. One-fourth grain morphine hypodermically gave no relief and when seen at 10:30 p.m., she was found propped up in bed with a drawn, apprehensive expression, respiration shallow and catchy, pulse 140, weak and irregular. Pulmonary embolism was considered and the chest strapped and morphine ordered p. r. n. The next morning she coughed up two dark clots and a little bright blood. The clots and a little bright blood (—, 24))) temperature now shot up and for four days ranged between 101° and 104.4° , the pulse 110 to 128 and respiration 26 to 44, the patient remaining all the time in a half-sitting posture and with great dyspnea. The pain gradually subsided; there was no more expectoration until the 75th day after the attack when there was bloody mucus which on the 9th day was quite free, with great feeling of soreness, still confined to the same area. There was absence of respiratory sound over the right lower lobe. It is now two weeks and she is doing well.

As to renal calculi, it is pretty generally conceded that they do not form without a previous infection, and the history of this case points to the puerperal infection as the primary exciting

cause. Small, loose stones give rise to more symptoms than larger fixed ones and here we had a freely movable stone which would lodge in the pelvic opening of the ureter, causing intense pain (at times requiring $1\frac{1}{2}$ grains of morphine hypodermically in a night besides chloroform inhalations and producing an obstruction with resulting pyelitis, the severity of which depended on the time the obstruction lasted.

Pulmonary emboli usually occurs after exertion, frequently the first day after getting up. This patient was very difficult to move on account of her weight and was allowed after a week to assist herself by means of a bandage attached to the foot of the bed; this may have been a contributing factor in dislodging the thrombus and would be a warning to restrain voluntary efforts in those cases where injury to veins is probable.

Mahler in 1885 pointed out a symptom, consisting of a divergence of the pulse and temperature curves, which,

although not always present, if noted should call for increased precaution and would be of great value in prophylaxis. It was not present in this case.

It is now thought that pulmonary embolism is of comparatively frequent occurrence and in all post-operative cases where there is pleurisy of limited extent or evidence of small areas of pulmonary inflammation an embolic cause should be suspected and great care taken to keep the patient quiet. Pulmonary infarcts are usually found in the lower lobe of the right lung (as in this case) where no previous disease as pleurisy or previous infarction has weakened the strength of stream in right pulmonary artery. The smallest infarcts undergo resolution, the larger rarely do; they may become organized or gangrene may result and an abscess form.

(Sept. 15, 1909. Further progress was uneventful and the patient left the hospital five and one-half weeks after the operation. She has remained perfectly well.) — 1241 West Eighth St.

INTERNAL OBSTRUCTION FROM PERITONEAL BANDS.*

BY C. VAN ZWALENBURG, M.D., RIVERSIDE, CALIFORNIA.

The basis of this paper is my experience with the following six cases. Case No. 4 was a frank "post-operative ileus," but occurring late it has many of the features of "obstruction by bands;" furthermore it so well emphasizes some of the general features of ileus that I have included it in this list.

Case 1. Mrs. S., aged 35. History: Chronic peritonitis. Gradually increasing constipation. Final attack of obstruction sudden and severe.

Operation after 36 hours. Fibrous band occluding about middle of ilium. Attached to posterior wall of abdomen about level of pelvic brim. Convalescence prompt, and cure of constipation.

Case 2. Mrs. P., aged 40. Ten years

previous had ovarian tumor removed, followed by some infection. Sudden onset of obstruction. Pain and vomiting. Cathartics and local applications. Called on fifth day. Operation immediately. Great distension with dull area in right hypochondrium. Operation difficult account distension. Loop strangulated in right flank. Black and gangrenous. Exsection 18 inches. Murphy button. Loop had slipped under band attached to mesentery right side of first lumbar vertebra and to side of intestine. Died in five days from peritonitis.

Case 3. Mrs. S., aged 24. Gradual onset following birth of first child. Operation after two weeks. decided illness, though colic had been increasing

*Read before the Southern California Medical Society, May 6, 1909.

for two months. Peristaltic wave evident. Numerous bands in all parts of abdomen. Partial obstruction in two points of Jejunum. Strangulation of ileum at brim of pelvis about two feet above colon. Many bands floating free from border of intestines all about the abdomen. Cyst-adenoma of ovary size of orange removed from left side. This undoubtedly was the cause of the bands. Irritating character of ovarian cysts is well known, sometimes rupture producing peritonitis.

Convalescence favorable until fifth day. Then symptoms of second obstruction. Owing to preliminary report of pathologist favoring malignancy and the great prostration even before the first operation, a second was deemed inadvisable—until four days later when prostration was extreme, after careful preparation, a hurried operation was done as a dernier resort. Patient was in operating room twenty minutes—anaesthetic and all. Obstruction this time was due to adhesion of Jejunum about two feet from duodenum to line of incision. Bowel above obstruction was distended to $2\frac{1}{2}$ to 3 inches—and thickened to $\frac{1}{8}$ inch. Congested to an extreme degree.

Recovery was now very prompt and satisfactory. Frequent doses of castor oil keeping bowels free. Has been well, actively working for her family since. Now four years. Has had one child two years after operation. Normal pregnancy and labor. Has at times colicky pain in right hypochondrium and short time since decided suggestion of obstruction lasting for ten hours. At present perfectly well, but says she cannot eat potatoes as they cause colic.

Case 4. Mrs. W., aged 32. Chronic pelvic pain and peritonitis for six or eight years. Removal tubo-ovarian abscess January 22. Recovery satisfactory but some drainage from wound and more than usual "gas" pains. Obstruction pain and vomiting February 14. Sudden and fairly severe. Peris-

taltic waves seen and felt fifteen hours later; abdomen thin. Operation twenty-four hours after onset. Ileum adherent to left of old line of incision at point of greatest tenderness located by careful palpation. Many adhesions all through abdomen, many coils of bowel separated. Recovery prompt and satisfactory.

Case 5. Mrs. C., aged 25. Tubal pregnancy operated on two years before—two weeks after profuse hemorrhage. Recovery had been prompt and complete; another child born eighteen months later, pregnancy and labor normal. Onset very sudden, after riding wheel moderately. Severe and continuing pain. Peristalsis visible in fifteen hours. Operation after twenty-four hours. Dullness in right iliac region suggested loop strangulation. Obstruction by volvulus upon band suspending free border of bowel from anterior abdominal wall at site of greatest tenderness at left of old incision. Distended loop on right side dark congested numerous hemorrhagic spots. Numerous adhesions found and liberated, but evidently not all. Remaining right cystic ovary removed with tube, also appendix. Uterus soft with two months' foetus. Recovery was uninterrupted. In three days patient declared she was not sick at all. Pregnancy still going on normally at five months.

Case 6. Mrs. C., aged 25. History of removal of appendix and left ovary and tube, for chronic pelvic and abdominal pain two years ago. Onset sudden and severe after eating freely of oranges first two days after coming from "East." Operation after twenty-four hours after strenuous argument with family as to its necessity. Immediately came upon strangulated dark and congested bowel with numerous hemorrhagic spots. Strangulation point located under point of tenderness in back part of abdomen at about McBurney's point. Band ran backward

and inwards from appendicæ epiploicæ of caecum to free border of two coils of small intestine which were held deep in the abdomen by loops of bowel being hung over them. At the same time a firm tense mesentery ran from this point down into the pelvis where its intestinal border was sharply kinked to adhesions to the stump of tube removed two years ago. Many other adhesions were found and severed, but it was impossible to get all. Recovery was uninterrupted and complete.

Nature's methods of protection and repair in the peritoneum involve a liberal pouring out of lymph, or glue, inlaid with white blood cells and tissue cells. This gives us that wonderful system of "coffer-daming" for which we are all so thankful when we see the advance of the bacterial army arrested. Likewise she has wonderful powers of absorption and removal of this wall of masonry, after it has served its purpose. When, however, she fails to remove all of it, we find fault with her and our patient is likely to suffer. Fibrous tissue cells seem then to predominate and we have remaining a firm adhesion which may be drawn out into a distinct fibrous cord. This "peritoneal band" is of interest to us chiefly on account of its ability to cause intestinal obstruction and strangulation.

Why the surplus of this fibrous tissue in some cases is an interesting problem upon which very little is written. A careful search of the literature in Barlow library gave almost no information. Delafield and Prudden (*Path. Anat.*) speak of large branching cells in some forms of chronic peritonitis, which seem to favor the production of adhesions.

Dr. Coffey of Portland (*Surg. Gyn. and Obst.*, Oct., '08) lays down this rule: "Two peritoneal surfaces brought together and held firmly in an aseptic state, adhere, blend and obliterate, and contiguous surfaces lose their endothelial covering, becoming continuous at

the point of peritoneal union." In the context of this elaborate article he emphasizes the necessity of pressure holding these surfaces together, in order to produce a union. This pressure, the injury to deep tissue cells by suture or by deep long continued inflammation must be factors. However, in case there was no destruction of tissue either by pressure nor injury, the cystic ovary was practically free from adhesions, yet the intestines were fairly covered with threads and bands in all directions. Is it possible that the ovary in this condition threw out embryonic tissue cells which were responsible for them?

As to prevention we can say but little. If we could in any way limit the inflammation we might do something. One thing we can do—that is, operate early in all operable conditions, before peritonitis has wrought its mischief.

On the same principle that irritation and excessive "passive motion" leads to excessive callous formation in cases of fracture, I venture the suggestion that the maximum of rest to the abdominal contents which comes from Oschner's plan of treating peritonitis will produce the least amount of exudate, and hence less liability to the formation of adhesions.

Whenever the abdomen is opened the possibility of their formation as a result must be borne in mind, and such precautions as we know instituted. The most important principle so far established is that as far as possible all surfaces should be covered with smooth, healthy peritoneum, and if removed or injured, should be recovered.

The use of Cargyle membrane seems to be disappointing and we hear little more of it. One of the latest plans, in the presence of peritonitis, is to leave liberal quantities of olive or linseed oil in the abdomen. Dr. Murphy expects good from this plan, according to his article in *Keen's Surgery*.

As to the mechanics involved in this form of obstruction, they are so variable

that a classification is difficult, and we failed to find one in the literature. In fact, we found very little on the mechanics of strangulation. There seems to be a general impression that a band usually crosses the lumen of an intestine and by contracting strangulates it, or that a coil of bowel slips under such a band and thus becomes strangulated. Both of these conditions do occur, but more frequently strangulation is the result of a complicated tangle involving a twisting or a volvulus—sometimes a sharp kink produced by hanging one loop over a band like a clothes line; at others catching of one band or adhesion with consequent pulling upon another, and a resulting kink at this second point.

Frequently it is impossible at the time of operation to make certain just what the form of knot is. We know that when we cut the string the trouble is relieved, and our anxiety to shorten the time of operation on account of the prostration of our patient, leaves no warrant for prolonged manipulation to unravel the exact mechanism of the knot. The vast majority of bands are attached at one end to the free border of the intestines. This sort of hangs them in the abdominal cavity, and does not interfere much with their free movement. Neither does it allow of any opportunity for a coil of bowel to slip under and get caught. If, however, a coil turns over and becomes twisted upon this suspended band we see how a volvulus will produce a strangulation. This is particularly easy when a second adhesion at a little distance from the first, prevents a free movement of the peristaltic wave.

All of these six cases occurred in married women. Their ages ranged between 24 and 40. Only one had reached the stage of strangulation gangrene and that was the only case which proved fatal.

Four gave a history of previous attacks of "low grade" chronic peritonitis.

One of extrauterine pregnancy, operated upon ten days after a severe hemorrhage, and the other had a cyst-adenoma of the ovary.

Two were slowly developing occlusions which reached the stage of strangulation shortly before operation (24 to 36 hours), the others were acute strangulations to begin with. In three of these patients a distinct peristaltic wave was visible and palpable on the abdominal wall during the occurrence of colicky pains.

In all these cases valuable information, as to the point of obstruction, was obtained by careful palpation for the point of greatest tenderness. In the last three cases it was positive. The point of obstruction coinciding absolutely with the point of greatest tenderness. In cases three and four this point coincided with the disappearance of the visible peristaltic wave. With the palpating hand this wave could also be felt to come up to this point and seemingly go no farther. It was a demonstration in itself of an obstruction and its site.

In all there was vomiting and obstipation after the first clearing of the bowels below the site of obstruction.

In all but one cathartics were given, and in each case the symptoms were increased in severity thereby.

Enemas were given in all cases.

In no case was there rise of temperature until after eighteen hours, and then it was slight—one-half to two degrees, and noted in four of the cases.

In all the picture of "obstruction prostration" was complete. I may make a mistake in attempting to designate a special form of prostration, but to my mind it is so characteristic and so different from any other form of prostration that it is worthy of special classification. I wish I could describe it adequately. It is one of the most important signs of obstruction we have. You have seen it and will recognize it whenever you see it again. It is not so

deep as in severe shock or hemorrhage, neither has it the "air-hunger" of these conditions. It has not the flush of peritonitis, nor its dynamic force. It has a deeply anxious expression bordering on despair. There is almost continuous nausea and a tendency to strain, and the feeling that an obstruction *must* be overcome is expressed in the attitude and actions of the patient. The patient lies prone; sprawled out on her back, with the head thrown back and sometimes the knees drawn up. She looks dreadfully sick and feels dreadfully sick, and coming as it usually does out of a clear sky, impresses us with the fact that some very serious disturbance is going on. In the early obstructive stage of severe acute appendicitis the picture may be much like it, but it is not so pronounced and not so continuous.

In cases three and four the bands were attached to the anterior wall of the abdomen, and it seemed to us that the fact of its attachment at this point favored the occurrence of visible peristalsis. In the other case (No. 3), in which it was present, the obstruction came on slowly and though the adhesion was to the posterior wall the intestines had opportunity to become very much distended and hypertrophied.

The portion of intestine involved was in all six cases some portion of the ilium. However, at the second operation in case three, it occurred about two feet below the Duodeno-Jejunal juncture. The diagnostic evidences that the obstruction in this case was not far from the stomach, were the localized distention in the upper abdomen, and the large quantities of fluid vomited. There was a great amount of effusion into the intestine and stomach and this would be vomited at intervals of a few hours. The depletion thus produced added markedly to the prostration.

The process of distention of a loop and of the intestine above the obstruction was perfectly illustrated. Most of

them being acute cases in the early stages demonstrated the beginning and the basis of the process. The first step is the occlusion of the bowel lumen. The occlusion of the blood vessels (strangulation) is a secondary result—unless a volvulus is present, which twists very tightly at the outset of the trouble. In that case the venous obstruction may be practically immediate. If a loop is involved, its distension comes from two sources. First, the crowding into the loop of bowel contents and secretions by peristalsis from above. Second, the effusion from obstructed circulation in the *wall* of the intestine by this distension. The distension obstructs the circulation and this causes the effusion. The effusion causes increased distension and completes the vicious circle—distension, obstructed circulation, effusion. This obstructed circulation is responsible for the oedema and further distension to the point of arresting the circulation entirely. Obstructed circulation in its presence of septic bacteria, always present in the bowel, means infection. Arrested circulation in the wall of the gut in the presence of germs means gangrene.

This venous obstruction from the tension on the walls of the intestines is responsible for the early congestion and later petechia and dark discoloration of the bowel. As the blood is driven into the wall by the arterial pressure it is forced to find avenues for return or dissemination throughout this wall. Much of the serum is thus forced out in the form of effusion into the lumen of the bowel and into the peritoneal cavity. This effusion accounts for the serum always present in the abdomen in these cases as well as into the sack in strangulated hernia.

The blood being unable to find exit by the natural channels, capillaries, arterioles and veins are forced by the arterial pressure to increased size, new

channels are formed, and the part presents the picture of congestion. Under this pressure capillaries and small vessel walls give way and we have the petechia and small hemorrhages so common in strangulation. This is the process in all forms of strangulation of hollow viscera, no matter what the obstructing cause. The difficulty with the circulation is in the wall of the intestine rather than in the mesentery. This is particularly true when the lumen is constructed directly without a loop. In that case the circulation in the mesentery is often in no way affected.

A new factor in this problem of oedema and effusion is vouched for by Dr. Martin Fisher of Oakland. He holds that oedemas are the result of an acid condition of the tissues. When venous return is interfered with oxidation of the tissues is diminished; carbonic acid remains in the tissues and the oedema is the result. To my mind it seems unnecessary to add this factor in those cases of strangulation. The overflow of serum from the damming back of the venous and lymphatic return in the wall of the intestine is enough. At least that is the mechanical condition involved. His chemical process may be a factor.

This same process of distension, obstructed circulation and effusion is at work in the intestine above the obstruction and above the loop. The only difference is one of degree. The lumen of the bowel in these conditions being free above, only a limited degree of distension is possible. Manifestly if the lumen is occluded in two places as occurs when a loop becomes strangulated in any form of hernia, there is no escape to the fluid contents. The damming process is complete and the pressure rises until some point of equilibrium is reached. This may be at the height of arterial pressure—say 150 mm. When, however, the lumen is open backward toward the stomach

the pressure will be only so high as the natural resistance from the folding of the coils of intestines for the varying distance back to the stomach, or more accurately to the mouth, together with the onward pressure of hyper-peristalsis in its efforts to overcome the obstruction. This is obviously a much lower degree of pressure, yet entirely sufficient to allow infection to take place and as shown by Kocher's experiments at Berne, to allow germs to pass through the wall of the gut and infect the peritoneum. He showed that this occurred only after impairment of the circulation. *Ueber Ileus-Mitth, aus der Grenzgebiete der Medizin und Chir.*, Vol. 4, 1899.)

These conditions were well illustrated in these cases. Case three at the second operation disclosed an enormously distended and thickened Jejunum above the point of obstruction, leaving no doubt as to the origin of the excessive amounts of fluid vomited. Much more than could be accounted for by a normal flow of bile and Pancreatic secretion. When the obstruction occurs lower down in the alimentary tract I presume that much of the fluid is reabsorbed before it reaches the stomach.

In the three cases where a loop was present, the greater urgency for operative interference was very evident, in the greater distension, congestion, extravasation, and inflammation present. There being no escape to the tension in the loop by regurgitation the process is, of course, much more rapid.

In cases two and five the loop formation was suspected from the localized dullness on percussion over them.

The severity of the symptoms and degree of pain were decidedly greater in the loop cases than in the others. In case six the destructive changes in the loop were very extensive, considering the short time symptoms had been present—24 hours. Petechial spots and real hemorrhages into the wall of

the bowel were numerous. The general color was a dark red bordering on brown.

The supreme indication in strangulation is, of course, the diagnosis. For we must operate early if we wish to do anything for our patients. We are so thoroughly agreed not to let the sun set on a strangulated hernia that the necessity for early operation will not be contested here.

Naunyn (*Keen's Surgery*, Vol. IV. p. 645) in 288 cases reports recovery in 75% of the cases operated on during the first and second day, while of those operated on the third day only 35% to 40% recovered. No more satisfactory operation can be conceived in all the realm of surgery than the early operation for strangulated bowel, be it an ordinary hernia or internal obstruction. The relief is immediate and the convalescence a dream.

The diagnosis being imperative, we *must* make it. Not necessarily the absolute diagnosis of the particular form of obstruction, but enough to see the urgency of operation. Fortunately the diagnosis can in the vast majority of cases be made, and in the early stages, easily, as a rule. In post-operative ileus the diagnosis of mechanical or dynamic is, however, often very difficult.

I would summarize the points for diagnosis of strangulation as follows:

1. Sudden onset of pain—colicky and severe.

2. Vomiting with regurgitation of gas. Nausea usually continuous. Vomiting of more fluid than is taken into the mouth.

3. Absence of fever until after several hours.

4. Tenderness moderate—diffuse—sometimes absent for hours, and localized only by careful search and not then in all cases.

5. Obstipation after the bowel below the obstruction has been emptied. I

would like to omit this symptom, because to make certain of it means delay, and to give cathartics aggravates the symptoms, and increases the danger. The absence of discharge of flatus from the bowel is an important symptom and can be watched without prejudice to the patient's condition.

6. "Obstruction Prostration." This will in many cases make the diagnosis upon sight. Its character I have attempted to describe.

7. Visible Peristalsis is a certain sign when present, but a mighty dangerous one to wait for. Don't wait.

8. History of chronic peritonitis, especially "low grade," long continued is valuable if present. Likewise the history of an abdominal operation especially if the convalescence is slow.

9. A "pulling pain" when patient moves off the dorsal position. Not always present.

10. Absence of the acute pain at the slightest movement so characteristic of peritonitis.

11. Abdominal distension—often localized according to site of obstruction. Also a poor symptom to wait for.

12. Murphy (*Keen's Surg.*, Vol. IV, p. 791): "Borborygmus is one of the most positive signs of mechanical obstruction; it is never present in peritonitis or in paralytic ileus."

13. Leucocytosis is usually present, especially later. Another poor excuse for delay.

I have said nothing of the toxæmia which develops as a later symptom in intestinal obstruction, nor its treatment by enterostomy. These were not pertinent questions in this series, and my paper is too long already. Cannon, Murphy and McClure, at the 1907 meeting of the A. M. A., and later in the *Journal*, reported some very interesting experiments on this subject.

Indication in urine.
X-ray and bismuth.
Explanatory is necessary.

PLAGUE AMONG GROUND SQUIRRELS IN CONTRA
COSTA COUNTY, CALIFORNIA.^a

By W. C. Rucker, Passed Assistant Surgeon, United States Public Health and
Marine-Hospital Service.

HUMAN PLAGUE.

In August, 1903, a blacksmith from the town of Pacheco, Contra Costa County, was admitted to the German hospital in San Francisco suffering from plague, from which he subsequently died. While investigating his case Surgeon Rupert Blue was struck with the fact that the patient had shot ground squirrels three or four days prior to his illness. Inasmuch as he had not visited Oakland or San Francisco, which were then infected points, for over a month prior to his taking sick, it was evident that the infection had been contracted in Contra Costa County, and it was thought not improbable that the ground squirrel was the agent concerned in the transmission of the infection. In September of the same year a man employed in the construction of a railroad bridge near Danville died of bubonic plague in the Southern Pacific Hospital in San Francisco. He had been working for some time in San Ramon Valley, and had lived in a railroad camp where ground squirrels were frequently killed and used as articles of food.

In 1904 a woman living near Concord, Cal., died of the disease, and in the investigation which followed Passed Assistant Surgeon Donald H. Currie made a series of experiments which proved conclusively the susceptibility of the ground squirrel to bubonic plague. No suspicious cases were reported during the summer of 1904 or 1905, but in 1907, immediately after the earthquake, Doctor Blue saw a boy suffering from bubonic plague of the multiple bubonic type. This patient had shot squirrels in the Strawberry Canyon in the Berkeley Hills adjoining Contra Costa County, three or four days before he was taken ill. He stated that in several instances he was obliged to thrust his arm down in the squirrel burrow in order to extract the animal he had shot. It is quite easy to see how in this way he may have been bitten by a flea infected with plague. He recovered.

^a Reprint No. 38 from the Public Health Reports, Vol. XXIV, No. 35, August 27, 1909.

On July 15, 1908, a boy living on a ranch in the northern part of the county, about midway between Concord and Antioch, died of the disease, and on July 28 a young lady died of the disease at the head of the Pinole Canyon (usually called Briones Valley), midway between Martinez and Pinole. In both these latter cases an intimate association with ground squirrels was shown.

RODENT PLAGUE.

In 1903, while investigating the case of the blacksmith in Pacheco, Doctor Blue pointed out the possibility of the ground squirrel acting in the same rôle as the rat in the transmission of the disease. Doctor Currie's investigations served to confirm him in this belief, but it was not until 1908, in the investigation which followed the two human cases mentioned above, that natural plague in ground squirrels was demonstrated. It was known as early as 1903 that an epizootic was spreading among the ground squirrels, but in spite of many attempts on Doctor Blue's part and the offer of liberal rewards no naturally infected squirrels could be secured. In 1908 infected rats were found on a ranch adjoining that on which the boy died of plague, and in the autumn of the same year an infected squirrel was found near the house in which he had lived. A little later three infected squirrels were found near Bay Point, a few miles north of this place. This epizootic has continued until the present date, but it does not seem at present to kill as many ground squirrels as during the earlier years. It is stated by those who observed the squirrels closely at that time that they died by the thousands. They would emerge from their holes and stagger about as though they were intoxicated. Their fur was turned the wrong way, and, in many instances, they were emaciated and presented swellings beneath the jaws or in the axillæ. They were seen crawling on the ground in a dazed condition, apparently having lost all sense of direction, and could be easily killed with a stick. Several intelligent ranchers state that they opened the bodies of several of these squirrels, and that their lungs were dark red in color and resembled liver in consistence. They may have suffered from the pneumonic form of the disease. Undoubtedly many died in their holes; in fact, some of the ranchers state that the holes were so full of dead squirrels that no more could get in, and the others consequently died on the ground. As a result buzzards came in great flocks, and the air was charged with the stench of the decomposing bodies. For a time they decreased so greatly in numbers that it seemed as if the county had been permanently rid of an animal which had been a perennial pest, destroying many thousand dollars' worth of crops annually.

The epizootic is supposed to have entered the county by one of three routes, from the northern part along the coast of Suisun Bay, or by way of Moragua Valley on the west, or the Niles Canyon on the south. It is thought by many that the infection was imported by the rats from the sugar ships coming from Honolulu and anchoring along the coast of Suisun Bay. Be this as it may, the infection rapidly spread throughout the entire county. In 1906 the squirrel population, which, as has been stated, was tremendously diminished by the epizootic, began to increase again, and, while it has not reached its original numbers, it is only a question of time until this occurs unless some eradivative measures are directed against them.

THE GROUND SQUIRREL.

The ground squirrel most commonly found in this county is the *Otospermophilus Beecheyi* (Richardson), or *Citellus Beecheyi*, belonging to the Arctomyinæ. The following description is given by Edgar Alexander Mearns, M. D., U. S. Army, in "Mammals of the Mexican Boundary of the United States," Bulletin 56 (1907), U. S. National Museum, pages 324-325:

Size smaller than *Otospermophilus grammurus* (nearly as large as the eastern gray squirrel) with a more slender body and shorter tail. Ears high and pointed. Mammæ, six pairs (P. $\frac{2}{2}$, A. $\frac{2}{2}$, I. $\frac{2}{2}$ =12). Color above brown, grizzled, and annulated with black in a vermicular pattern; darkest anteriorly, and most grizzled and vermiculated posteriorly. Nape and sides of neck silver gray; this color prolonged backward above the shoulder in the form of stripes which are sometimes faintly traceable to the root of the tail, though usually ending about the middle of the body. Ears black outside, grayish or faintly rusty inside, and along posterior border. Top of head bister, slightly dusky above orbits, which are encircled by white. Sides of head grayish, mixed with yellowish brown. The tail, which is less bushy and shorter than in *O. grammurus*, is yellowish gray, the lateral hairs thrice annulated with black. Feet yellowish gray. Under surface of the body grayish white. The interscapular region is often blackish, more or less vermiculated with pale annuli. Length, 410 mm.; tail vertebræ, 170; hind foot, 55; ear above crown, 21; ear above notch, 27; length of head, 62; skull, 57 by 34 mm.

They usually exist in colonies, sometimes digging very extensive burrows which often honeycomb an entire hillside. The entrances to the burrows are approached by paths 2 or 3 inches wide worn in the grass by the running to and fro of the animal. Soft ground is usually chosen for digging the warren, but sometimes they burrow into hard adobe, and, in certain localities, they dig extensive tunnels in the soft limestone. The earth dislodged in digging the burrows is piled in a mound at the entrance of the hole. The tunnel usually makes a sharp preliminary drop and then points upward a distance of 2 or 3 feet. It then forks, one branch going to the storehouse and the other to the nest. Collateral branches are given off from these two main avenues to the various exits. The nest is built of straw, pieces of bark, and similar débris, and usually contains a

great number of fleas. In the storehouse grain, fruit, and several varieties of wild seeds are laid by for the winter season. These are carried there in the cheek pouches of the animal. They may be observed playing about or eating the grain and seeds on which they subsist, and usually there are one or two sitting bolt upright by the entrance to the burrow. On the approach of the hunter they will whistle, and after a short time it is very easy to recognize the meaning of these signals. If one sharp whistle is given, the animal will usually sit still, and it is possible to get a shot. If he gives one sharp whistle and goes down into the hole, it is safe to wait a few minutes for him, but if he gives one sharp whistle followed by two or three trills in a descending scale it is simply a waste of time to wait for him to come out, because he has been thoroughly frightened and may not reappear for two or three hours. They spend the winters—that is, the wet months—in the foothills, and there the young are born in late March and early April. The litter varies from five to seven. In late April and early May most of the young squirrels have grown sufficiently to travel, and an emigration into the lowlands begins. This is not completed until late May, when the grain crops are harvested. By this time food in the hills has become relatively scarce, and the animals, descending into the valleys, subsist on fruit, garden truck, and grain. In the former instance their activities are particularly pernicious, and they have frequently been seen to cut off small branches laden with unripe prunes and drag them into their hole. While they do not build nests in the trees, they frequently dig extensive burrows at their roots, and occasionally they are seen in the branches gathering nuts. They are very fond of elderberries, and will climb the trees in search of them.

SQUIRRELS AS HUMAN FOOD.

For many years a considerable proportion of the population of this region has eaten ground squirrels at certain seasons of the year, and it is stated that when in good flesh they are as good as, if not superior to, rabbits. Several families have been found who are in the habit of salting them down in large numbers and using them almost to the exclusion of other meats. In all probability the eating of squirrels is not in itself dangerous, provided they are well cooked, but the danger lies in the handling of them prior to cooking; that is, in skinning and preparing them. There are a large number of men who make their living by hunting these animals for the markets, and, until recently, large daily shipments were made. Realizing the danger of such a practice, Doctor Blue invited the attention of the state board of health to it, and, at his request, a resolution was passed forbidding the acceptance of ground squirrels for shipment by express companies and common carriers, unless accompanied by a certificate to the effect that they were intended for scientific purposes, and carried in sealed metal

cans. This succeeded in a measure in putting a stop to this dangerous business, but a large number of private hunters continued to come into the county. The matter was then brought to the attention of the mayors of Oakland, Berkeley, and Alameda, with the result that the people were warned against the use of ground squirrels for food. An inspector was also stationed at the Fish ranch on the Tunnel road, which is the main thoroughfare into the county, with instructions to inform all persons passing with bags of squirrels of the danger to which they were exposing themselves. As a result, the practice of eating squirrels has very greatly diminished, and the market hunters have been obliged to seek other employment.

CONNECTION BETWEEN THE GROUND SQUIRREL AND BUBONIC PLAGUE.

In other parts of the world—eastern Siberia, northern Mongolia, and the base of the Himalayas, in northern India—it has been observed that an epizootic spreads among the *Arctomyiæ*, and that persons eating and handling these rodents contract bubonic plague. This has been treated of by several authors, notably Beliatzky, Reschtnikoff, Zabolotny, Rudenko, and Bannerman. These various authors give a description of an epizootic which very closely resembles that observed in Contra Costa County. It was not, however, proved that the disease existed among the *Arctomyiæ* of America until the summer of 1908. This fact, however, was considered of sufficient importance to warrant the beginning of an antiplague campaign in Contra Costa County.

There is reason to believe that the booby owl, which is a constant companion of the ground squirrel, occupying the same burrows with him, may play an important rôle in the dissemination of the epizootic. It is thought that this bird, flying from burrow to burrow, may carry infected fleas for long distances. If this be found true, the problem of the eradication of the epizootic will thereby be greatly complicated. Some of the ranchers of this vicinity firmly believe that the booby owl does not harbor fleas, and state that it will transport horse manure long distances for the purpose of lining its nest. Their contention is that the ammonia generated by the decomposing manure will inhibit the growth and multiplication of fleas. As yet, no opportunity has occurred to disprove or verify this statement.

In 1909 a campaign against the ground squirrel was inaugurated. The immediate charge of the work was assigned to Passed Asst. Surg. W. C. Rucker, who had conducted part of the investigations during the previous summer, and was thoroughly familiar with the ground to be covered. Experiments were made with the various agents to be used in the destruction of ground squirrels, and an endeavor was made to obtain samples of the squirrel population from all parts of the county.

LOCATION AND TOPOGRAPHY OF CONTRA COSTA COUNTY.

Contra Costa County is one of the central counties of the State. It is bounded entirely on the west, north, and east by water, its western boundary being San Francisco Bay, its northern boundary the San Pablo and Suisun bays, its eastern boundary the San Joaquin River, and its southern boundary Alameda County. It is also bounded, to a certain extent, on the west by Alameda County, and is, therefore, in close proximity to all of the bay cities. Its western boundary line is within 9 miles of San Francisco and adjoins Berkeley. Its area is 734 square miles, or about 444,491 acres. Its topography is semimountainous with broad, rich, intervening valleys. Besides the range of hills bordering the western and northern portions of the county, there are two ranges of hills running in a general northerly and southerly direction, with large productive intervening valleys watered by substantial streams. In the center of the county stands Mount Diablo, a rugged peak about 3,800 feet in height. The valleys of Alhambra, Pacheco, Ignacio, Clayton, and San Ramon extend from Suisun Bay at Martinez on the north to the southern boundary line of the county beyond San Ramon. Numerous smaller valleys give off from these, and the great San Joaquin Valley begins in eastern Contra Costa County, extending from Mount Diablo on the west to the San Joaquin River on the east. The rich valleys afford an abundant food supply for the squirrel population, while the wild hill lands shelter them in winter from the rains and from human and animal foes. The proximity of the county to the bay cities, which have until recently been plague-infected, and the constant presence of ships coming from oriental ports, in Suisun Bay, demonstrate how easily the infection could have been introduced into the county, and how readily it could be transferred to the cities, which have just been rid of plague at such great cost. The large area to be covered, the wide spread of the infection, and the character of the terrane all combine to render the campaign exceedingly difficult.

SQUIRREL ERADICATIVE AGENTS.

Poisonous gases—(1) *Carbon bisulphide*.—Two agents were found which gave good results in the poisoning of squirrels. The first of these was commercial carbon bisulphide. The carbon bisulphide of commerce is usually sold in 5-gallon zinc-lined cans. These are quite heavy, and it is not wise to carry them. When poisoning, a 2-quart glass fruit jar having a screw top is best for the purpose. Waste is made up into balls and loosely tied with a string. Several of these balls are kept in the jar which is half full of carbon bisulphide, and when it is desired to place one in a hole they are taken up with a large pair of forceps made of heavy wire. Bisulphide should not

be brought in contact with the skin, as its rapid evaporation will freeze the part and produce scars which heal with considerable difficulty. To use carbon bisulphide a piece of waste the size of an orange is saturated with the fluid and the wet ball placed in the mouth of the squirrel hole. When the saturated ball has been placed in the hole, earth is tamped tightly upon it so that the gas which is generated may have no opportunity to escape. All of the holes of the burrow are treated in this way. In some instances the ball is placed deep in the hole and then ignited. This is more or less dangerous as an explosion occurs, and, while the gas is thus disseminated to all parts of the warren, its action covers only a limited period of time, and is, therefore, not as certain as the first method mentioned. Experiments are now being made with carbon-bisulphide shells which may prove a rapid and efficacious means of squirrel destruction. These consist of shells made of waxed paper which is loosely packed with waste. Leading into it on either side is an insulated wire, the bare ends of which almost meet in the center of the shell. Just prior to using the waste is saturated with carbon bisulphide. When an electrical current is passed through the wire it sparks across the gap, thus igniting the bisulphide and producing an explosion. If one of these shells were placed in each hole of the warren and the earth tightly tamped behind it, and all discharged simultaneously, it is believed that the shock alone would be sufficient to kill everything in the warren.

Several of the manufacturers of pyrotechnic supplies are placing on the market shells which produce much smoke and gas and which are said to be useful in the extermination of squirrels.

Pumps: Thus far none of the pumps for introducing bisulphide into the tunnels has proven ideal. Many of them are efficacious, but are very heavy and slow in their delivery of gas. It is believed that a light and simple apparatus can be made by attaching an automobile pump to a tube guarded by a valve and leading to the bottom of a large square tin can, from the upper surface of which would lead a hose for carrying the gas into the hole. By pumping air through the can of bisulphide the gas would be generated and could thus be rapidly forced into the subterranean tunnels. Carbon bisulphide seems to be an ideal agent for the extermination of squirrels in a plague campaign, for the reason that it not only kills the squirrel but also the fleas upon him and in the tunnels, thus precluding the possibility of infected fleas remaining to perpetuate the epizootic in another colony of squirrels subsequently occupying the same burrow. The chief disadvantages of carbon bisulphide are its high explosive power, its liability to corrode the cans in which it is kept, and its cost, $11\frac{1}{2}$ to 12 cents per pound in the California market. It

can not be used when the ground is dry and cracked, and can, therefore, be applied with success only during the wet or winter months.

(2) *Sulphur dioxide*.—Sulphur dioxide, if properly applied, would fulfill all of the requirements of an ideal agent for poisoning squirrels. It is cheap and nonexplosive. It would kill both the squirrel and his parasites. Thus far only one hand pump for introducing the gas produced by burning sulphur has been found on the market. If it could be obtained cheaply enough, compressed sulphur dioxide would be practicable. In common with all other gases, however, it is efficacious only when the ground is wet. The fluid obtained on cleaning Pintsch gas tanks has been recommended. It is cheap and said to be efficacious, but it is not easy to secure it in sufficient quantity for carrying on a work of this kind. Experiments are now being made with a view to determining the merit of this product as a pulicide.

(3) *Hydrocyanic-acid gas*.—Hydrocyanic-acid gas used with proper precautions is a most excellent agent for exterminating the squirrels. It should not, however, be entrusted to careless or ignorant people, but only persons who have been carefully instructed as to its dangers and method of use should be allowed to employ it. A small tin pan 3 inches in diameter and 1 inch in depth containing 100 c. c. of 10 per cent sulphuric acid is set in the squirrel hole. All of the other holes of the warren are carefully tamped so that they are gas tight. A quantity of wet clay or adobe is placed near the mouth of the hole in which the gas is to be generated. One gram of potassium cyanide in a small paper bag is then placed in the sulphuric-acid solution. The length of time required for the acid to soak through the bag gives the workman a chance to close the hole quickly with the wet clay. The reaction which occurs may be expressed as follows: $2\text{KCN} + \text{H}_2\text{SO}_4 = 2\text{HCN} + \text{K}_2\text{SO}_4$. The gas will kill everything in the warren. This, in common with all other gaseous agents, can be used only when the ground is moist. Its advantages are its cheapness (about 7 cents per colony) and certainty. Its disadvantages are its extreme toxicity.

Poisoned grain.—The second agent which gives good success is poisoned wheat. The poisonous agent used is either strychnine sulphate or cyanide of potassium, preferably a mixture of the two, applied to wheat with a little glucose or other sweet material and then dried. The appended formula may be recommended:

Strychnine.....	ounce..	1
Cyanide of potassium.....	ounces..	2
Eggs.....	dozen..	1
Honey.....	pint..	1
Wheat or barley.....	pounds..	30

Stir eggs well, then mix in honey and again stir. Then put in dry powdered strychnine and cyanide and stir until well mixed.

Put wheat in large box or can and pour in the mixture of poison and stir until it is well distributed over the wheat. Stir two or three times during twenty-four hours, then spread out and dry. Before putting it out for the squirrels add oil of rhodium 1 drachm.

This agent is very effective when the food supply is limited, that is, during the winter months. Great care must be taken in the distribution of poisoned wheat lest domestic animals and quail and other birds be killed by it. It should all be placed in the squirrel hole itself, and never on the surface of the ground. This is especially necessary in pastures when the food is short, because valuable cattle cropping the grass close to the ground are apt to take it and be killed. It will thus be seen that the ideal time to carry on a squirrel eradication campaign is the rainy season, as the squirrels are then localized in the foothills, the ground will hold the poisonous gas, and the reduced food supply will cause the consumption of the poisoned wheat.

Phosphorus.—Phosphorus has not proven as useful in the destruction of ground squirrels as in the poisoning of rats. It is dangerous to handle and serious fires may be started with it. After a few days exposure to the open air and the bright sunshine it quickly loses its toxic power, and it is therefore not recommended for this work.

Flooding.—Where there is a sufficient fall of water, flooding the squirrel warren will drive the squirrels out very effectually. If men are stationed around the edge of the colony with guns or clubs, great numbers may be slain, but flooding is useless unless this is done, because the squirrels will simply migrate to the high lands, to return as soon as their burrows are dry.

Natural enemies.—It has been hoped that some use might be made of the natural enemies of the squirrel in this campaign, but no one of the known natural enemies is ideal for this purpose. The coyote, wolf, fox, badger, skunk, mountain lion, gopher snake, and red-tailed hawk all prey upon the squirrel, but each is open to some objection. This matter is, however, being carefully studied out, and some plan may be evolved whereby use can be made of this means of killing squirrels. Several young sparrow hawks have been secured, and an endeavor is being made to train these birds to hunt squirrels, much as falcons were used in olden days. This may prove very useful on flat lands, where a hunter can not get close enough to the squirrels to secure a shot.

Traps.—Several varieties of traps have been experimented with, but none have proven very successful. A squirrel is a very wary animal, and he will not enter his hole if he sees anything unusual therein. So simple a thing as a ball of paper placed in the mouth of the hole will cause him to abandon that particular runway. Experiments are now being made with snares. These are made of fine wire,

and it is hoped that in this way a large number of ground squirrels may be captured alive. This will afford the laboratory an opportunity to study the susceptibility to plague of squirrels from an infected locality, and a few may be captured in the early stages of plague, thus rendering it possible to study the natural form of the disease at close range.

Shooting.—After the preliminary experiments with the various poisonous agents, which could be conducted only while the ground was moist and the squirrels' food supply scanty, an endeavor was made to secure samples of the squirrel population from all portions of the county in order to determine the exact extent of the infection and, if possible, its percentage. A number of men were, therefore, stationed by the officer in charge at what were considered strategic points. For the most part these employees were taken from among the men who had been trained in the field work in San Francisco. Each was supplied with a single-barreled, 12-gauge shotgun, a cleaning rod, canvas knapsack, canvas-covered aluminum canteen, ammunition, squirrel tags, cans, chloroform, solder, indelible pencils, report blanks, and stationery. Unless the hunter wears some protection for the shoulder it may become bruised by the recoil of the gun. Each hunter, therefore, wears over the gun shoulder a pad of soft felt an inch in thickness, such as is used beneath horse collars. It was not found practicable to use rifles in this work on account of their danger to stock and the fact that, as a rule, they do not kill the ground squirrel outright. Until the fields became very dry it was practicable to use shells loaded with black powder in the proportion of $3\frac{1}{4}$ drachms of powder to $1\frac{1}{8}$ ounces of No. 8 soft shot. Later, on account of the danger of setting fire to the dry fields with the burning wads, it was found necessary to substitute smokeless powder. Ground squirrels are very hard to secure after having been shot. Frequently, even though badly mangled, they will crawl into their holes, and thus escape. The ideal charge for securing ground squirrels for purposes of examination is that which gives the maximum shock with the minimum laceration of the tissues. No. 8 shot is large enough to fill these requirements, and so many of them striking the animal causes great shock, while they are not large enough to tear the tissues badly. It has been found that squirrels are most often secured when they are shot on the run, and that almost invariably when they are shot sitting up they will fall into a hole, and thus escape. By shooting at the running squirrel the hunter has the double advantage of striking the animal when he is spread out, while at the same time he may choose the place where he wishes him to fall. It has been found that a heavy piece of wire with a sharp barb about an inch long on the end is a very effective instrument in extracting wounded squirrels from the burrows.

Dogs are now being trained for the purpose of retrieving squirrels. This will save the hunter a great deal of work, and will enable him to secure almost all of the squirrels which he wounds. It has been found that the early morning and late afternoon are the best times of day to shoot squirrels. They ordinarily do not come out of the holes when it is very warm, very cold, or very windy. It is not profitable to hunt in the same colony for more than two or three days at a time, as the squirrels soon become very "gun shy," and take to earth as soon as anyone approaches. Under ordinary conditions a hunter should shoot and secure at least 30 squirrels per day, although when they are very numerous the day's bag may reach 60 or 65. In one instance one man shot 131 in eight hours.

SEARCH FOR DEAD SQUIRRELS.

At the beginning of the campaign it was thought that the best way to secure plague-infected squirrels would be to make a careful search for their dead bodies. The employees were, therefore, instructed to make careful search for dead squirrels in and around colonies in which they were hunting. Out of 67 thus found not one has proved to be infected. This method has not, however, been abandoned, but little is expected from it, and it is thought that it is not improbable that the plague-stricken squirrels die in their holes.

TAGGING.

The squirrels are secured as soon as shot and a tag immediately attached to each. This is necessary, because they will sometimes revive and crawl away or the hunter may lose track of them. If they are tagged as soon as shot there is no danger of mistagging them, and the handling is reduced to the minimum. The tag shows where, when, how, and by whom captured, also the name of the nearest town, to facilitate locating the ranch on the map.

SHIPMENT OF SQUIRRELS.

Each evening the squirrels are placed in tin cans especially provided for the purpose. In the can is placed 75 c. c. of commercial chloroform for the purpose of killing fleas. The lid is then tightly applied and carefully sealed with solder. The can is then tagged and sent by express to the plague laboratory in San Francisco. It will thus be seen that every precaution is taken to protect expressmen and other persons handling the cans. In hot weather the squirrels must be rushed to the laboratory with the greatest expedition, as they are likely to decompose rapidly and generate considerable gas which will blow off the covers no matter how tightly they may be secured.

This causes complaints on the part of the express companies and their employees. In many instances, however, it is very difficult to forward specimens prior to their decomposition. One hunter stationed in an isolated part of the county makes it his business to know whenever the ranchers in his vicinity are going to town, and gets them to carry his squirrels to the nearest village. There they are delivered to a foreman who ships them by stage to the nearest railroad; thence they are taken to Oakland, and by ferry to San Francisco.

Where two or more men are hunting in the same district (or where the bag is unusually large) large milk cans with especially prepared rubber gaskets are used. The lids are also secured by padlocks, one key of which is kept by the man sending the can, the other remaining at the laboratory. The small cans are used but once; the large cans are returned by express.

LABORATORY EXAMINATION.

On the arrival of the cans at San Francisco they are immediately transported to the laboratory by a special messenger with a wagon. They usually arrive in time for the squirrels to be examined within twenty-four hours after they are killed. When the squirrels arrive at the laboratory they are first liberally sprinkled with chloroform, after which they are given a bath of bichloride of mercury, 1 to 1000. They are then piled upon a large lead-topped table. One employee tacks them to shingles and passes them on to a second laboratory assistant, who makes a record of the tag and gives the shingle a number, so that if the tag should be lost it will be possible to tell where the squirrel came from in case it should be found infected. The squirrel thus prepared is passed to other men who have become expert in opening small mammals through their experience in handling rats during the San Francisco plague campaign. These men are very skillful in recognizing the gross lesions of bubonic plague, and as soon as a suspicious animal is found the dissection of it ceases. The attention of the bacteriologist is called to the squirrel, and in case he is unable to look at it immediately it is covered with a damp towel for the purpose of keeping off flies should any have found entrance to the laboratory. The dissection is then finished by the medical officer in charge of the laboratory, who dictates to a clerk the findings in each particular case. They are noted on a card, which becomes a part of the card index system of the laboratory. Inoculations are made into guinea pigs, and the usual cultures planted. All squirrels are carefully examined by the medical officer in charge of the laboratory, but so expert have his assistants become that on two occasions only have they failed to lay aside squirrels which subsequently proved infected. The value of the gross pathological findings in the recognition of plague is thus very clearly demonstrated. As soon as a suspicious or positive squirrel-

rel is found the medical officer in charge of the field operations is notified. It is the policy to discontinue work on any colony of squirrels which has presented a considerable degree of infection, it being felt that the present object in that particular locality has thus been accomplished.

DANGER TO EMPLOYEES.

In all, 178 infected squirrels were found up to August 13, 1909. They came from almost every portion of the county in which the men have been at work. It will thus be seen that the employees handling squirrels are subjected to very great risk. Every precaution has been taken to reduce this to the minimum. They have been warned of the dangers of the work, and the opportunity to receive Haffkine's prophylactic has been offered them. Several of the hunters and laboratory assistants have taken this immunizing treatment. All employees have been warned not to thrust their arms down the squirrel tunnels in an endeavor to recover animals which they have wounded. There is not only the danger of being bitten by the squirrel, but they may also pick up some infected fleas in this way. Another danger is that rattlesnakes are sometimes in the holes. In fact, several employees were nearly bitten in this way. Each hunter carries in his knapsack a ball of waste saturated with chloroform. This is for the purpose of killing the fleas upon the squirrels, or at least stupefying them to the extent that they will not leave the sack.

WINTER CAMPAIGN.

It is planned that in the autumn, when the suitable time for poisoning squirrels arrives, and the ranchers have the time to take up the matter, a general campaign of education will be instituted and an endeavor made to enlist the cooperation of every person holding land in the county. Poison will be issued gratis, and the ranchers will be asked to distribute it under the direction of inspectors of the service. The state board of health and county board of supervisors will cooperate in every way in the prosecution of this work. Aside from the fact that the eradication of the ground squirrel is a public-health measure, the rancher will also feel that it is of the very greatest benefit to him in a financial sense. For years these pests have levied a heavy annual tax, and in some instances have destroyed entire crops. Therefore the rancher will have a double reason for giving his cooperation. The fact that the Federal Government, the State, and the county have all taken up their portion of the burden will offer another reason why each individual citizen should do his part. This campaign is aimed at the eradication of what would otherwise be a permanent focus for bubonic plague, and, therefore, a constant menace to the public health of the entire nation.

PLAGUE-INFECTED GROUND SQUIRRELS FOUND IN CONTRA COSTA COUNTY
BETWEEN JUNE 4 AND AUGUST 13, 1909.^a

Date.	Serial number.	Location.
June 4	1	Root's Ranch, Rancho Acalanes, Lafayette.
12	2	Stewartsville, sec. 10, T. 1 N., R. 1 E.
12	3	Do.
16	4	Mount Diablo tract, Clayton, sec. 13, T. 1 N., R. 1 W.
17	5	West Hartley, sec. 12, T. 1 N., R. 1 E.
17	6	Do.
17	7	Do.
17	8	Do.
17	9	Do.
17	10	Do.
17	11	Do.
17	12	Mount Diablo tract, sec. 13, T. 1 N., R. 1 W.
17	13	Do.
17	14	Do.
17	15	Stewartsville, sec. 10, T. 1 N., R. 1 E.
18	16	Do.
18	17	Do.
18	18	Do.
18	19	West Hartley, sec. 12, T. 1 N., R. 1 E.
18	20	Do.
18	21	Mount Diablo tract, Clayton, sec. 13, T. 1 N., R. 1 W.
18	22	Keller's ranch, Clayton, sec. 12, T. 1 N., R. 1 W.
18	23	Do.
20	24	Do.
20	25	Do.
22	26	Mount Diablo tract, Clayton, sec. 13, T. 1 N., R. 1 W.
26	27	Keller's ranch, Clayton sec. 12, T. 1 N., R. 1 W.
23	28	Do.
23	29	Do.
24	30	Lynch's ranch, Rancho San Ramon (Norris).
25	31	Nortonville road, sec. 8 T. 1 N., R. 1 E.
25	32	Bailey's ranch, sec. 18 T. 1 N., R. 1 E.
25	33	Do.
28	34	Keller's ranch, Clayton, sec. 12, T. 1 N., R. 1 W.
29	35	Lynch's ranch, Rancho San Ramon (Norris).
30	36	Do.
30	37	Do.
30	38	Do.
July 1	39	Keller's ranch, Clayton, sec. 12, T. 1 N., R. 1 W.
2	40	Do.
2	41	Azaveda ranch, sec. 3, T. 1 S., R. 1 E.
6	42	Keller's ranch, Clayton, sec. 12, T. 1 N., R. 1 W.
7	43	McCabe ranch, Byron, sec. 10, T. 1 S., R. 3 E.
7	44	Nortonville road, sec. 8, T. 1 N., R. 1 E.
7	45	Keller's ranch, Clayton, sec. 12, T. 1 N., R. 1 W.
7	46	Do.
7	47	Naphtaly's ranch, Walnut Creek, sec. 3, T. 1 S., R. 2.
7	48	Bucholtz ranch, Rancho Cañada de los Vaqueros.
8	49	Naphtaly's ranch, Walnut Creek, sec. 3, T. 1 S., R. 2 W.
8	50	Joaquin ranch, Clayton, sec. 24, T. 1 N., R. 1 W.
8	51	Do.
9	52	Naphtaly's ranch, Walnut Creek, sec. 3, T. 1 S., R. 2 W.
9	53	Do.
9	54	Gunther's ranch, Clayton, NW $\frac{1}{4}$, sec. 18, T. 1 N., R. 1 E.
10	55	Naphtaly's ranch, Walnut Creek, sec. 3, T. 1 S., R. 2 W.
10	56	Mattos ranch, sec. 10, T. 1 S., R. 1 E.
12	57	Boeco Grant, Rancho Cañada de los Vaqueros.
13	58	Meredith's ranch, Clayton, SW $\frac{1}{4}$, sec. 7, T. 1 N., R. 1 E.
13	59	Do.
13	60	Madsen Bros. ranch, Rancho Laguna de los Palos Colorados.
14	61	Fraguelas ranch, Rancho Cañada de los Vaqueros.
14	62	Keller's ranch, Clayton, sec. 12, T. 1 N., R. 1 W.
15	63	Do.
15	64	Do.
15	65	Do.
15	66	Fraguelas ranch, Rancho Cañada de los Vaqueros.
15	67	Cope ranch, Danville, sec. 9, T. 1 S., R. 1 W.
17	68	Meredith's ranch, Clayton, SW $\frac{1}{4}$, sec. 7, T. 1 N., R. 1 E.
17	69	Do.
17	70	Keller's ranch, Clayton, sec. 12, T. 1 N., R. 1 W.
17	71	Knox ranch, Danville, north of sec. 10, T. 1 S., R. 1 W.
17	72	Lucas ranch, Rancho Laguna de los Palos Colorados.
17	73	Madsen Bros. ranch, Laguna de los Palos Colorados (rancho).
18	74	Tormey's ranch, Clayton, sec. 27, T. 2 N., R. 1 W.
19	75	Taylor's ranch, sec. 10, T. 1 S., R. 3 W.
19	76	Do.

^a Previous to June 4, 1909, 4 infected squirrels had been found as follows: August 5, 1908, at Farias ranch, Concord, 1; August 29, 1908, at Morton ranch, 1; August 25, 1908, at Southern Pacific Railroad tracks, near Morton Foundry, 1; September 19, 1908, in field near Bay Point, 1.

PLAGUE-INFECTED GROUND SQUIRRELS FOUND IN CONTRA COSTA COUNTY
BETWEEN JUNE 4 AND AUGUST 13, 1909—Continued.

Date.	Serial num- ber.	Location.
July 19	77	Taylor's ranch, sec. 10, T. 1 S., R. 3 W.
19	78	Do.
19	79	Meredith's ranch, Clayton, SW. $\frac{1}{4}$, sec. 7, T. 1 N., R. 1 E.
19	80	Do.
20	81	Do.
20	82	Do.
20	83	Sherburne's ranch, sec. 35, T. 1 S., R. 1 W.
21	84	Lewis ranch, Curry Cañon, Morgan Territory, sec. 4, T. 1 S., R. 1 E.
21	85	Mount Diablo Tract, Clayton, sec. 13, T. 1 N., R. 1 W.
21	86	Devlin's ranch, sec. 10, T. 1 S., R. 3 W.
22	87	Sturgis ranch, Hookston, Rancho Cañada del Hambre.
22	88	Meredith's ranch, Clayton, SW. $\frac{1}{4}$, sec. 7, T. 1 N., R. 1 E.
22	89	Morese ranch, Danville, sec. 31, T. 1 S., R. 1 W.
22	90	Keller's ranch, Clayton, sec. 12, T. 1 N., R. 1 W.
22	91	Dario's ranch, Rancho Cañada de los Vaqueros.
22	92	Do.
22	93	Do.
22	94	Do.
23	95	Domingo's ranch, sec. 15, T. 1 S., R. 3 W.
23	96	Meredith's ranch, Clayton, SW. $\frac{1}{4}$, sec. 7, T. 1 N., R. 1 E.
23	97	Cardoza ranch, sec. 20, T. 1 N., R. 1 E.
23	98	Do.
23	99	Do.
23	100	Do.
25	101	Meredith's ranch, Clayton, SW. $\frac{1}{4}$, sec. 7, T. 1 N., R. 1 E.
25	102	Keller's ranch, Clayton, sec. 12, T. 1 N., R. 1 W.
25	103	Cardoza ranch, Morgan Territory, sec. 20, T. 1 N., R. 1 E.
26	104	Meredith's ranch, Clayton, SW. $\frac{1}{4}$, sec. 7, T. 1 N., R. 1 E.
26	105	Brubeck's ranch, Rancho Arroyo de las Nueces y Bolbones.
26	106	Do.
26	107	Do.
26	108	Hartz's ranch, Danville, Rancho San Ramon (Carpentier).
27	109	Brubeck's ranch, Walnut Creek. (See 105.)
27	110	Do.
27	111	Do.
27	112	Bailey's ranch, Clayton, sec. 18, T. 1 N., R. 1 E.
27	113	Do.
27	114	Rose ranch, sec. 23, T. 1 S., R. 3 W.
27	115	Do.
27	116	Naphtaly's ranch, Walnut Creek, sec. 3, T. 1 S., R. 2 W.
27	117	Do.
28	118	Sturgis ranch, Walnut Creek, Rancho Cañada del Hambre.
28	119	Naphtaly's ranch, Walnut Creek, sec. 3, T. 1 S., R. 2 W.
29	120	Do.
29	121	Burgess ranch, Rancho Laguna de los Palos Colorados.
30	122	Pigott's ranch, Walnut Creek, Rancho Cañada del Hambre.
30	123	Keller's ranch, Clayton, sec. 12, T. 1 N., R. 1 W.
30	124	Do.
30	125	Do.
31	126	Cardoza's ranch, Morgan Territory, sec. 20, T. 1 N., R. 1 E.
31	127	Lacassie's ranch, Walnut Creek, Rancho Cañada del Hambre.
31	128	Do.
31	129	Sturgis ranch, Hookston, Rancho Cañada del Hambre.
Aug. 1	130	Keller's ranch, Clayton, sec. 12, T. 1 N., R. 1 W.
1	131	Do.
1	132	Do.
1	133	Cardoza ranch, Rancho de los Vaqueros.
1	134	Burgess ranch, Rancho Laguna de los Palos Colorados.
1	135	Pigott's ranch, Rancho Cañada del Hambre.
2	136	Lacassie's ranch, Walnut Creek, Rancho Cañada del Hambre.
2	137	Do.
2	138	Cardoza ranch, Rancho Laguna de los Palos Colorados.
2	139	Sturgis ranch, Walnut Creek, Rancho Cañada del Hambre.
2	140	Brubeck's ranch, Rancho Arroyo de los Nueces y Bolbones.
3	141	Oleson ranch, sec. 6, T. 1 N., R. 3 E.
3	142	Do.
3	143	Haffley ranch, sec. 6, T. 1 N., R. 3 E.
3	144	Do.
4	145	Sec. 10, T. 1 S., R. 3 W.
4	146	Do.
5	147	Mount Diablo tract, sec. 13, T. 1 N., R. 1 W.
5	148	Meredith's ranch, SW. $\frac{1}{4}$, sec. 7, T. 1 N., R. 1 E.
6	149	Silva Ranch, sec. 4, T. 2 S., R. 2 E.
6	150	Do.
6	151	Keller's ranch, sec. 12, T. 1 N., R. 1 W.
7	152	Naphtaly's ranch, sec. 3, T. 1 S., R. 2 W.
7	153	Do.
8	154	Silva Ranch, sec. 6, T. 2 S., R. 2 E.
8	155	Do.
8	156	Do.

PLAGUE-INFECTED GROUND SQUIRRELS FOUND IN CONTRA COSTA COUNTY
BETWEEN JUNE 4 AND AUGUST 13, 1909—Continued.

Date.	Serial number.	Location.
Aug. 8	157	Souza Ranch, sec. 6, T. 2 S., R. 2 E.
9	158	Silva Ranch, sec. 6, T. 2 S., R. 2 E.
9	159	Do.
9	160	Olsen Ranch, sec. 6, T. 1 N., R. 3 E.
10	161	Meredith's ranch, SW. $\frac{1}{4}$, sec. 7, T. 1 N., R. 1 E.
10	162	California Vineyard Co., SE. $\frac{1}{4}$, sec. 14, T. 1 N., R. 1 W.
10	163	Do.
10	164	Buckley Ranch, sec. 9, T. 1 S., R. 3 W.
10	165	Sturgis Ranch, Rancho Canada del Hambre.
10	166	Donovan Ranch, sec. 6, T. 1 N., R. 1 E.
11	167	Mount Diablo tract, sec. 14, T. 1 N., R. 1 W.
11	168	Silva Ranch, sec. 14, T. 1 S., R. 3 W.
13	169	Silva Ranch, sec. 6, T. 2 S., R. 2 E.
13	170	Do.
13	171	Do.
13	172	Nunez Ranch, sec. 6, T. 2 S., R. 2 E.
13	173	Do.
13	174	Do.

NOTE.—The dates given in the foregoing list are those on which the diagnosis was confirmed by bacteriological examination.

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EDITORIAL

SOMETHING ABOUT CANCER.

One of the subjects under greatest consideration today by the surgical profession is that of cancer. Perhaps there is no line of work that is being given more thought and time than investigation of this problem.

Organizations at home and abroad are appointing committees to investigate the subject. Statistics are being gotten together in all quarters of the world. Experiments are going on in laboratories, trying to discover not only the cause, but whether or not it is possible for the disease to be transmitted from one person to another, or from one animal to another. New York has made an appropriation to maintain a laboratory for cancer research.

There is a quite general feeling that cancer is on the increase. However, many feel that the apparent increase is

largely due to the greater number of correct diagnoses, to the lessening of infant mortality, and to the general prolongation of life which is afforded by modern medicine and hygienic living.

Investigation has shown that it is, a disease that occurs in every climate, among all races, both civilized and savage, in wild beasts and in domestic animals whether herbivorous or carnivorous. It exists in birds, in fish, and "even in the lowly oyster." In other words, it occurs throughout nature. That it exists in some localities and, at various times, to a much greater degree than elsewhere, has also been pretty satisfactorily shown.

That "cancer areas" exist, that "cancer houses" also exist, there are a few who are willing to aver. Whether or not cancer is directly communicable is a question that has been answered in

the affirmative by many, and in the negative by even more equally as authoritative.

Howard A. Kelley knows of no facts that would tend to show that carcinoma is communicable.

On the other hand, A. J. Ochsner says he has had a considerable number of patients in whom the husband and wife successively acquired carcinoma in a manner that made it fairly certain that contagion was the cause. He has also seen several cases of carcinoma in patients who live in the same house and were exposed to each other.

Dr. John B. Murphy, from his own experience, has never seen a case in which he considered that carcinoma was communicated. He thinks it is not communicable from one individual to another. He is sure it is transmissible from one cutaneous surface to another in the same individual by contact and friction.

Maurice Richardson has never seen any patients with cancer as communicated from one person to another, but he is sure that it can be communicated from one place to another on the same individual. When operating upon cancer he is very careful not to cut into the tumor for fear of starting a new focus of the disease. This is quite the universal opinion at present.

W. B. Coley believes in the parasitic origin of cancer and that it is probably mildly contagious, but he admits that this point is as yet not very conclusive.

W. W. Keen is not willing to deny the possibility of the occurrence, although he has never seen a case which

he could regard as being communicated from one person to another.

Murphy believes that there is a tendency to cancer in certain families due to the absence of resistance, and that this absence of resistance is a hereditary condition.

In 1903 Jensen expressed the hope of obtaining an anti-cancer serum, but this hope has not been fulfilled.

Bashford, of London, Director of the Imperial Cancer Research Fund, points out that the number of deaths assigned to cancer as a cause increases from one country to another parallel with the increasing accuracy of the vital statistics of the several countries. His address delivered before the Sixteenth International Medical Congress at Budapest, and which is published in the *New York Medical Record* of September 4, 1909, is most interesting.

R. W. Westbrook of New York City, in a recent article published in the *American Journal of Surgery*, says that in New Jersey in 1900 the deaths from cancer were more than those from tuberculosis. In New York State in 1907 were more than half as many deaths from cancer as from tuberculosis. In the whole country there are approximately 80,000 cases. It is estimated that one woman in eight who reaches her thirty-fifth year dies of cancer.

One of the best summaries of the cancer question as it exists today is to be found in the *Practical Medical Series* of 1909, Vol. 2, on General Surgery, edited by Murphy, of Chicago.

When one recalls that the intermediary host (the *Stegomyia-Fasciata*) of

yellow fever must become infected before the fourth day of the disease in man, and that it must then carry the infection in its own body for at least twelve days after becoming so infected before it can be transmitted to another person by the stegomya, one can readily understand the difficulties surrounding the questions of proof in establishing the method of communication of certain diseases from one individual to another. One then questions how long it may be before some possibly accidental discovery may lead up to the establishment of facts concerning the cause and transmission of cancer.

G. L. C.

TREATMENT OF PELLAGRA.

Much interest has been aroused during the last two years in the subject of pellagra. A study of the disease in the United States has thus far shown that it is widely distributed throughout the South, and present in some localities in the North. The question of prognosis and treatment is naturally, therefore, one of much interest. Dr. C. H. Lavin-der, of the Public Health and Marine Hospital Service, who for more than a year has been devoting his time to a study of the disease, has in a recent article (a) given a brief review of the subject.

He states that the prognosis must invariably be considered as grave, and that complete recovery can seldom be assured. Reliable statistics on the sub-

ject in the United States are practically limited to asylum cases, and give a mortality of 67%. It must be borne in mind, however, that asylum cases are undoubtedly the more advanced and hopeless ones, and for that reason will give a mortality much above the average. Lombroso gives statistics of hospital cases in Italy in 1883 and 1884, showing a mortality of 13%, whereas Wollenberg gives Italian statistics for 1905 showing a mortality of a little over 4%. The disease resembles tuberculosis, both in that it is an insidious and chronic condition, and that much depends upon early diagnosis and treatment, prognosis of early cases being far better than advanced ones. The importance of this is apparent when it is considered that the disease is an intoxication, and that it is probably associated with diseased corn or corn products used as food.

Predisposition is believed to be an important factor in this disease. Lowered physical resistance, mental worry, insufficient food, bad housing and alcoholism are supposed to render one more susceptible.

In Italy laws have been passed regulating the use and storing of corn and its derivatives, institutions have been established for the care and treatment of pellagrins, improved agricultural methods are encouraged, and assistance is given to the sick in many ways by the government. (b)

In the treatment of patients Lombroso recommends a liberal diet; in

(a) Public Health Reports, Sept. 10, 1909. Copies of this article can be obtained by making request to the Surgeon-General, Public Health and Marine Hospital Service, Washington, D. C.

(b) Public Health Reports, July 23, 1909, pp. 1053-1054.

some cases he uses baths and cold douches, believing them to be of benefit in certain cases with nerve and skin manifestations; he has found arsenic a valuable remedy, and sodium chloride of service.

Some authors have reported good results from the use of the newer arsenical preparations, atoxyl and soamin.

Transfusion of blood from cured cases to the sick has been tried, and may prove of value.

EDITORIAL NOTES

Dr. Otto G. Marsh has located in San Diego.

Dr. Harris Garcelon of Los Angeles enjoyed a rest at Coronado.

Dr. F. B. Dwire has located in Gardena, a suburb of Los Angeles.

Dr. Hall spent his vacation motor-ing through Northern California.

Dr. A. Tyroler of Los Angeles took his summer vacation in Los Angeles.

Dr. J. R. Leadsworth, formerly of Redlands, has located in Santa Ana.

Dr. S. J. Mattison of Pasadena recently spent two weeks at Lake Tahoe.

Dr. David D. Thornton of Los Angeles has located in the Douglas Building.

Dr. C. E. Lukens of Albuquerque has been spending his vacation in Los Angeles.

Dr. John R. Haynes of Roswell, New Mexico, has removed to Haynes, New Mexico.

Dr. Henry St. John of Yuma, Arizona, spent three months in and near Los Angeles.

Dr. E. D. Strong of Silver City, New Mexico, is physician in charge at the Socorro mines.

Dr. J. F. Spencer of Gardena has been appointed assistant health officer of Los Angeles.

Dr. A. H. De Long has located in Gallup, New Mexico.

Dr. Lulu H. Peters has been appointed pathologist of the Los Angeles County Hospital.

Dr. C. W. Pierce of Los Angeles has returned from the National Fraternal Congress in Boston.

Dr. J. T. Stewart of Los Angeles has been spending two months in the hospitals of New York.

Dr. Fordyce Grinnell of Pasadena has been attending the State Humane Convention at San Francisco.

Dr. George M. Brockway, Florence, Arizona, needs a young man, a recent medical graduate, for an assistant.

Dr. G. A. Broughton, formerly of Oxnard, is now located in the Wright & Callender Building, Los Angeles.

The Sisters of St. Francis are having constructed a \$10,000 addition to the St. Francis Hospital, Santa Barbara.

Dr. J. David Beatty, formerly of St. Louis, has located in Los Angeles, with his residence at 206 West Avenue 57.

Dr. F. B. Molin and others have organized the San Pedro Hospital Association, with a capital stock of \$25,000.

Dr. E. G. Toland of Pomona has been spending a few weeks in the hospitals of Chicago and other middle-west cities.

Dr. F. M. Fieronnet has established a private hospital in Wilmington. Wilmington has recently been annexed to Los Angeles.

Dr. H. A. Putnam of Inglewood has returned to his home and his practice after an extended vacation of recuperation.

Dr. Robert A. Campbell of Los Angeles and Miss Katharine Young of Bloomington, Illinois, were married September 28th.

Dr. B. L. Seager of Nordhoff enjoyed a steamer trip between Los Angeles and San Francisco and divided his vacation between the two cities.

Miss Peterson, class of 1908, Training School for Nurses of the California Hospital, is Superintendent of the hospital at Gilroy, California.

Dr. J. A. Simpson, of Albuquerque, has been appointed surgeon in the United States Army and assigned to Fort Wingate, New Mexico.

Drs. Ralph Avery, R. D. Potts, W. R. Livingston and A. A. Maulhardt are all favoring the erection of a new hospital in Oxnard, Ventura county.

Dr. W. A. Weldon of the borough of San Pedro, city of Los Angeles, has been fishing and hunting on the McCloud River, Shasta County.

Dr. H. Vance Clymer of El Centro has been appointed physician and surgeon to the Indians on the Yuma Reservation in Imperial County, California.

Dr. B. F. Church of Los Angeles has located in Redlands. Dr. Church has always commanded the high esteem of his fellow practitioners and of the community.

During ten days ended August 31, 1909, there were 35 cases of typhoid fever with one death at Ithaca, New York. All were due to infected milk on one route.

Dr. E. S. McKee of Cincinnati is the author of the treatment of catarrh and coryza that appears on page 404 of the August SOUTHERN CALIFORNIA PRACTITIONER.

A charity hospital under the auspices of the Methodist Episcopal Church of Los Angeles has been opened in a private residence near the University of Southern California.

Dr. Wesley Thompson, the well-known San Bernardino practitioner, has located in Huntington Park, Los Angeles county. The doctor graduated from the Miami Medical College in 1869.

The National Eclectic Medical Association Quarterly, Vol. I, No. 1, is on our table. It is edited by William Nelson Mundy, Forest, Hardin County, Ohio, and is a dignified, creditable publication.

Dr. J. L. Dryer of Santa Ana was burned by an explosion of gas in his bathroom September 12. Although the injuries were very painful, yet the doctor was attending to practice as usual in two or three days.

Dr. Samuel William Means, formerly of San Francisco, has located in Los Angeles. Residence, 1932 West Sixth street. Dr. Means graduated from the Medico-Chirurgical College, Philadelphia, class of 1902.

The regular quiz class conducted by Dr. Stookey and Dr. Leonard preparatory for the December meeting of the State Board of Medical Examiners began Tuesday, October 5th, at 3:30 p.m., in 631 Auditorium Building.

Dr. Charles A. Hayes of Los Angeles, a graduate of the College of Medicine, U. S. C., after serving seven years as medical missionary in China, has returned home and is now living at 717 East Twenty-seventh street.

Dr. A. S. Parker, the well-known practitioner of Riverside, has located in Needles, where he has been appointed surgeon for the Santa Fe. Dr. Parker graduated from the Medical Department of Tulane University, class of 1893.

Dr. Carl Horace Parker of Pasadena, who successfully passed the August examination of the California State Medical Board, has entered the Cook County (Chicago) Hospital, where he will spend a year as *interne*.

The Homeopathic Medical School of the University of Minnesota will next year be merged with the regular school of that institution. One professor will teach the Homeopathic system of using drugs, otherwise the courses will be the same.

Dr. Smith L. Walker, formerly of Los Angeles, but now located in Truro, Nova Scotia, is author of a useful pamphlet, *Tuberculosis; The Greatest Problem Today*. It is published by the Coldchester Association for the Prevention of Tuberculosis. It contains just the information the public needs.

On September 1, 1909, there were in the Insane Hospitals of California 6602 patients. They were distributed as follows: Stockton, 1941; Napa, 1836; Agnews, 706; Mendocino, 877; Patten (Southern California), 1242. There was a gain during August of 282. Of the total insane 4128 are males, 2474 females.

Out of 413 births in Los Angeles during the month of August, both parents of 249 were born in the United States; both parents of 102 were foreign born; one parent born in United States and one foreign, 60; not known, 2. There was not a death from septicemia or any other disease or accident of childbirth or childbed.

Dr. N. W. Austin, Surgeon United States Public Health and Marine Hos-

pital Service, says cases of amoebic dysentery are frequently admitted to the Marine Hospital, San Francisco. The usual treatment of cases at this hospital has been, first, large doses of ipecac given in salol-coated capsules; later high enemata of 1 to 1000 quinine solution.

Dr. D. C. Strong, Superintendent of the San Bernardino County Hospital, has been spending six weeks in New York hospitals. During his absence Dr. Pollock attended the medical patients at the hospital, Dr. Aldrich had charge of the jail patients, and Dr. Burke of Highland and Dr. J. A. Champion of Colton had charge of the surgical work.

We have received the thirty-first annual announcement of the California Eclectic Medical College, 337 South Hill street, Los Angeles. The requirement is a four years' course of thirty-six weeks in each term. From what we know of Dr. J. A. Munk and other members of the faculty, we are confident that this college is one of the very best of the Eclectic system.

Of the record of the California Medical Colleges before the State Board of Medical Examiners at the August session:

College of Physicians and Surgeons, L. A., 1 passed; College of Physicians and Surgeons, S. F., 5 passed, 6 failed; Cooper Medical College, S. F., 18 passed, 2 failed; California Eclectic Medical College, L. A., 1 failed; Hahneman Medical College, S. F., 4 passed, 4 failed; Oakland College of Medicine, 3 passed; University of Southern California, L. A., 13 passed, 4 failed; Of the Osteopaths, 9 passed, 7 failed.

The New Mexico Medical Association closed its annual meeting in Roswell Thursday, September 16th. Dr. J. W. Elder of Albuquerque was elected president of the organization for the ensu-

ing year; vice-presidents, Dr. T. B. Fest of Las Vegas, and Dr. R. L. Bradley of Roswell; treasurer, Dr. A. H. Faith of Clovis; secretary, Dr. G. S. McLandress of Albuquerque; editor of the *Medical Journal*, Dr. Fest of Las Vegas.

At an inquest held at Guy's Hospital, London, July 30th, the Coroner, Dr. Waldo, stated that out of forty-one deaths from anesthesia into which he had to inquire, thirty-three were due to chloroform, or to ethereal mixtures containing it; the other eight to ethyl chloride. The London correspondent of the *Medical Record* says: "Some of our anesthetists have almost entirely discarded chloroform for ether." In view of the above figures this is certainly surprising!

The *Practitioner's Digest*, Vol. I, No. 1, published by the Kaplan Publishing Co., San Francisco., appeared October 1st. It is edited by Dr. H. J. Power, and is a creditable journal. As there was already one PRACTITIONER published in California we think some other name might have been chosen, but we "appreciate the compliment," in the language of the impecunious man who was asked to change a twenty-dollar bill. The Register, which is included in the *Digest*, will stand a great deal of revision. It is embarrassing and in fact harrowing to the family of a deceased physician to be receiving in his name, business propositions and sample copies years after the event.

Dr. Ernest Crutcher, formerly of Seattle, has located in Los Angeles. Dr. Crutcher graduated from the Medical Department, Vanderbilt University, Nashville, Tennessee, class of 1879. To a reporter of the *Los Angeles Daily Herald* the doctor said: "With the vibrant stream of humanity that flows here there comes also the derelicts—

the people who have sought satisfaction in unlimited self-indulgence of appetite and passion, the drug habitue, the cigarette fiend, the 'beer-is-a-food' dupe, the obsessed who follow in the wake of the hypnotist, the medium and like will-destroying processes; the neurasthenic, the pervert, the criminal without cause, the would-be suicide, the insane of divers sort—this flotsam and jetsam of society that become the wards of this community in particular. Is it not a mighty problem to care for this class? How vain have been materialistic remedies in treatment. Here is a great problem in Southern California, and to its remedy I shall devote my attention." Just the reading of this makes us dizzy.

The Kaspere Cohn Hospital, Los Angeles, is to be moved to Stephenson avenue, Boyle Heights, just outside the city limits. The site for the hospital is a beautiful five-acre tract between Dorris and Calhoun streets. Something over \$50,000 will probably be the cost. Two buildings will be erected, a main hospital and a tubercular ward, the latter standing about 100 feet back of the larger structure. The main building will have a frontage of 158 feet and a depth of eighty feet, and will be constructed in the form of the letter "T." The two structures will be connected by a pergola. The tubercular ward will be 35x50 in dimensions, exclusive of courts. The larger building will have accommodations for fifty patients, while ten cots will be accommodated in the smaller. Both buildings will be constructed of red pressed brick with artificial granite trimmings. The main hospital will be two stories, basement and attic, while the other structure will be a single story in height. A beautiful two-story portico with stone columns will be a feature of the former building.

OF GENERAL INTEREST

THE BENZIDIN TEST FOR OCCULT BLOOD.

Since Boaz, in 1903, directed the attention of the medical world to the significance of small hemorrhages from the gastrointestinal tract, many methods have been employed to detect the macroscopically invisible blood, among them the Teichmann hemin test, the spectroscopic examination, the guaiac and aloin tests. In 1904, O. and R. Adler described the benzidin test, which was, however, inapplicable for clinical purposes until several modifications were effected. The following method of Schlesinger and Holst seems most practical; feces are ground with distilled water and boiled. While this is cooling a concentrated solution of benzidin is made by using as much benzidin as will go on the end of a knife in about 2 c.c. of glacial acetic acid. About 1 c.c. is poured into a test tube, ten drops of the boiled feces solution added, and the two shaken. To this 1 to 3 c.c. of a 3 per cent. solution of hydrogen dioxide is added and shaken, when, in the presence of blood a green or deep blue color appears. In using this test several precautions must be borne in mind, the benzidin must be pure, and no excess of hydrogen dioxide should be used. Oxidizing ferments (destroyed by boiling), iron salts, potassium iodide, animal charcoal, have given a positive reaction, hence these substances are always previously eliminated before using the test.

In the *American Journal of the Medical Sciences*, E. H. Goodman publishes the results of a number of experiments made with the benzidin test in Musser's Philadelphia laboratory. In all, he studied 129 specimens of feces, the guaiac, aloin, and benzidin tests being applied to each. The three

tests agreed 110 times out of 129. From his studies he concludes that a benzidin test of feces should be made first; if negative we may be sure of the absence of blood, and we need go no further. If, on the other hand, the test is positive, the aloin and guaiac tests should be made, and if these are negative occult blood may be regarded as being absent. A substantiation of the benzidin test is to be regarded as indicating the presence of blood. Hence, a positive benzidin test shows nothing unless corroborated by one or both of the other tests; a negative test, however, is proof of the absence of occult bleeding. In none of his cases was the benzidin test negative and the other tests positive.

After the feces show a positive reaction for blood we can determine whether this is pathological or not by not examining another stool until diet and medication have been regulated; only then can a fair idea of the clinical importance of the test be obtained. Goodman recommends the benzidin test for gastric and urine work as well. Owing to the sensitiveness and simplicity of this test it may well be adopted in every laboratory.—*Medical Record*.

THE OCHSNER TREATMENT OF APPENDICITIS.

1. Patients suffering from chronic recurrent appendicitis should be operated upon during the interval.

2. Patients suffering from acute appendicitis should be operated upon as soon as the diagnosis is made, provided they come under treatment while the infectious material is still confined to the appendix, if a competent surgeon is available.

3. Aside from insuring a low mor-

tality, this will prevent all serious complications.

4. In all cases of acute appendicitis, without regard to the treatment contemplated, the administration of food and cathartics by mouth should be absolutely prohibited, and large enemata should never be given.

5. In cases of nausea or vomiting, or gaseous distension of the abdomen, gastric lavage should be employed.

6. In cases coming under treatment after the infection has extended beyond the tissues of the appendix, especially in the presence of beginning diffuse peritonitis, fasting and gastric lavage should always be employed until the patient's condition makes operative intervention safe.

7. In case no operation is performed, neither nourishment nor cathartics should be given by mouth until the patient has been free from pain and otherwise normal for at least four days. The same practice should be followed after operation.

8. During the beginning of this treatment not even water should be given by mouth, the thirst being quenched by rinsing the mouth with cold water and by the use of small enemata. Later, small sips of very hot water, frequently repeated, may be given, and still later small sips of cold water. There is danger in giving water too freely, and there is great danger in the use of large enemata.

9. All practitioners of medicine and surgery, as well as the general public, should be impressed with the importance of prohibiting the use of cathartics and food by mouth, as well as the use of large enemata, in cases of patients suffering from acute appendicitis.

10. It should be constantly borne in mind that even the slightest amount of liquid food of any kind given by mouth may give rise to dangerous peristalsis.

11. The most convenient form of rectal feeding consists in the use of one ounce of one of the various concentrated liquid predigested foods in the market, dissolved in three ounces of warm normal salt solution, introduced slowly through a soft catheter inserted into the rectum a distance of two or three inches.

12. This form of treatment cannot supplant the operative treatment of acute appendicitis, but it can and should be used to reduce the mortality by changing the class of cases in which the mortality is greatest into another class in which the mortality is very small after operation.

To conclusion 8 are now regularly added the method, introduced by Murphy, of administering a continuous enema of normal salt solution, and, in case of diffuse peritonitis, the Fowler position.—*The Canadian Practitioner*.

DOCTORS BY THE YEAR.

The brilliant Dr. Woods Hutchinson of New York City recently said:

"There are persons in this hall who will live to see tuberculosis as nearly extinct as leprosy or smallpox. The death rate from tuberculosis in this city has decreased 20 per cent. in the last twenty years. The disease is being rapidly stamped out. The fact is, we doctors are working ourselves out of a living by checking diseases.

"We doctors used to live by typhoid fever in the fall, pneumonia in the winter, and influenza in the spring. A doctor with a fair practice could always count on from \$300 to \$3000 every fall from typhoid fever. Now that is practically gone.

"Every doctor could also count on a good deal from the visits of the stork, but even that has almost passed away these days.

"From this point of view the future for the doctor is a bit discouraging.

But I also see signs of encouragement, for this is the dawn of the new doctor. The time is rapidly coming when two-thirds of the doctors will be in the employ of the community, either as inspectors in the schools or on boards of various kinds. The day is near at hand also when the doctor will no longer be engaged to patch up the sick man, but to prevent him from getting sick. He will visit families, examine the premises, inspect factories and shops, and give instruction to his patients how to keep from getting sick. Each family will select its doctor and pay him so much a year per capita. The doctors will not lose by the arrangement, either."

TREATMENT OF BOILS.

For the treatment of boils all that is necessary is a small piece of stick sharpened to a fine point, a little absorbent cotton, a 95 per cent. solution of carbolic acid, and a 5 or 10 per cent. ointment of salicylic acid. As soon as the boil has pointed, and it has usually done so when the patient comes to us, a small bit of the cotton is wound about the pointed stick, dipped in the carbolic acid, and bored into the softened point of the boil. This gives a chance for the pus to escape and thoroughly disinfect the cavity of the boil. The boil is not to be squeezed. The surface of the skin in the neighborhood of the boil is then washed over with peroxide of hydrogen, or a solution of bichloride of mercury, 1 in 1000, and the salicylic acid ointment spread on old washed cotton or linen cloth, or several thicknesses of gauze, laid over the boil and the adjacent region. That is the end of that boil, as a rule. If it is a very large boil, the operation may have to be repeated the next day. The ointment is to be kept constantly on the affected part for a week. Of course, a few new boils may appear for a few days in the region, the result of

the infection of the skin follicles before this treatment was instituted. They are to be treated in the same way, and a cure will soon be attained.

If a patient comes to us before the boil has pointed it may be aborted by injecting into it a drop or two of a 5 to 10 per cent. solution of carbolic acid, or touching its top with 95 per cent. carbolic acid, while the above-mentioned salicylic acid ointment is used as a dressing.

There is no question that warm poulticing will relieve the pain of a boil, because it relieves tension of the skin. If such dressing is thought to be necessary there is no harm in using compresses of hot boric acid solution. It is not necessary if the boil is punctured with pure carbolic acid, because the acid produces anesthesia in a few moments. Many times have I seen patients who have been kept awake for nights by the throbbing pain of the boil, go home and sleep quietly after the carbolic acid has been used.—*Dr. George Thomas Jackson in American Journal Medical Sciences, 1909.*

DR. HENRY SHERRY AND GOVERNOR JOHNSON.

Dr. Henry Sherry of Pasadena in an interview with a *News* reporter said:

"It was my privilege to ride on the same car as the late governor to Rochester when he was taken to the hospital where the operation was to be performed by the Mayo Brothers.

"I was especially impressed by the democracy of the man, as shown by his refusal to ride in a private car and by paying his own fare. The coach in which he rode was an ordinary buffet chair car. He was accompanied by his wife, a beautiful woman, of modest and unassuming manner. She particularly impressed me by her bearing.

"Governor Johnson impressed me as very sick and as suffering from great pain. He was extremely nauseated at

times, and it was a wonder to me that for the sake of humanity, if for nothing else, when the man's position is considered, he was not prevented from traveling in so democratic a manner.

"We arrived in Rochester at 9:30 o'clock in a drizzling rain, where the train was met by Dr. Charles Mayo, whose automobile bore the governor to the house of his friend, Mr. Sullivan, where he remained until the next day, when he was taken to the hospital to be operated on Wednesday morning for the secondary effects of a previous acute inflammation of the appendix.

"The operation was performed by William and Charles Mayo, personal friends of the governor and skillful surgeons. William Mayo is a regent of the University of Minnesota, to which position he was appointed by Governor Johnson.

"Necessarily the public cannot be interested in the technique of the operation. It was long, tedious and difficult, as may be readily imagined when Governor Johnson was for two hours under the hands of two of the most skillful surgeons in the country.

"The operation was a necessary one, to eliminate a chronic condition from which the governor was likely to die at any time from intestinal obstruction. His case was desperate from the beginning and the prospect of recovery was more a question of hope than a possibility.

"Fortitude was the most marked characteristic of the man. It was indeed remarkable that he should send from his bed of suffering and pain a message to President Taft, then on his way to Minnesota, regretting his inability to greet him on his arrival."

GASTRIC ULCER.

In a paper on *The Differentiation of Reflex Dyspepsia From Primary Organic Disease of the Stomach*, by Dr.

Dudley Fulton in the ARCHIVES OF DIAGNOSIS for July the author says:

"The anamnesis is the most important factor in the diagnosis of digestion. Actual gastric pain is almost never a symptom of functional dyspepsia. It is imperatively necessary to examine the heart, liver, lungs and genito-urinary organs of every dyspeptic. There are only two organic dyspepsias that may be readily confused with functional disorders of the stomach, namely chronic gastritis and early carcinoma.

"Carcinoma should be suspected if a persistent dyspepsia develops in a person over forty years of age without apparent cause.

"Ulceration of the stomach and duodenum is much more frequent than is generally appreciated.

"Ulcer of the stomach is a medical disease and many of its complications and sequelae are surgical.

"With early diagnosis of ulcer and proper treatment most ulcers would promptly heal.

"The most constant symptoms of ulcer are actual pain, sour stomach, tenderness to pressure, vomiting, hemorrhage and rigidity of the recti muscles. The pain of ulcer occurs at a definite period after eating.

"When in doubt, treat the patient for ulcer.

"The symptoms of organic stomach diseases are dependent upon the intake of food.

In gastric ulcer, vomiting occurs from one to four hours after meals.

"Obtain a clear and accurate early history in all cases of dyspepsia."

It is said sodium sulphate is a true intestinal antiseptic if administered in doses below the aperient effect. It has been tried in infantile diarrhea and in some cases of typhoid fever, but to obtain this effect one must avoid doses having an aperient action.

BOOK REVIEWS

THE PSYCHIC TREATMENT OF NERVOUS DISORDERS. Sixth Revised Edition. By Dr. Paul Dubois, Professor of Neuro-pathology at the University of Berne. Translated by Smith Ely Jelliffe, M.D., Ph.D., Visiting Neurologist, City Hospital; Instructor in Materia Medica and Therapeutics, Columbia University, New York; and William A. White, M.D., Superintendent Government Hospital for the Insane, Washington, D. C.; Professor of Nervous and Mental Diseases, Georgetown University. Octavo, cloth, 485 pp. Price, \$3 net; by mail, \$3.15. Funk & Wagnalls Company, New York.

In going very carefully over this volume it would seem that Dubois is blazing away through a deep tangle in a manner that seems to bring hope for the future out of a chaos which has surrounded psychotherapeutics for many years.

After many hours of pleasure in perusing the volume, the reviewer came to the conclusion which he afterwards found expressed by Déjerine, concerning the same work. It is this, "but what is most distinctly felt on reading these pages is that they are the work of a man with convictions to whom one might apply the phrase of our old Montaign, 'here is a good book of good faith.'"

In other words, the keynote to the work of Dubois is persuasion rather than suggestion. This is especially true in dealing with neurasthenia. The treatment of the neurasthenic under the method of Dubois is largely a matter of re-education. In other words, to correct his perverted ideas through honesty of purpose and lead him up to a recognition of his wrong ways of thinking and his wrong ways of living, rather than through the course which is so often attempted of trying to suggest to him that he is not sick. To quote from the introduction: "All that I have seen in these last years has shown me that my faith in psychotherapeutics is not yet sufficiently alive, sufficiently a part of myself. I am astonished with what

facility it is possible to correct perverted faculties, to restore to clear thought, to a sane philosophy of life, people who for thirty or forty years have been under fatal illusions concerning their physical health. . . . I am not in any way opposed to Janet's education of the mind, but I would like to see less psychology and more ethics. There is no doubt that it is a good thing to create in these patients the practice of mental synthesis, and for this any exercise is good; but it is above all important to give them confidence in themselves and to bring them to fight against irrationalism, to teach them to be their own masters. This purely moral instruction is suitable for those whose intellects are very limited and whom one could not even bring to write a composition or make a calculation. Let my colleagues take this path, and they will see that I have not exaggerated matters, and that the psychotherapeutic will find the neurasthenic sufficiently intelligent to understand him, sufficiently reasonable to follow his advice, provided he has a little of that optimistic courage, that persistent conviction, which believe in the sweets of persuasion. . . . I create between persuasion and suggestion all the difference that exists between a good piece of advice and a practical joke. Both can obviously produce in the subject the desired reaction; but I have recourse to suggestive methods only in very rare instances, for the sake of rapidity, as in the case in which one prescribes a draught that is merely capable of producing an effect on the imagination. It is sometimes excusable, but it is not conscientious. . . . I have often criticised my pupils when they have gleefully told me of the results obtained in a seance on some patients whom I had confided to them, and

I have written: "Take care, you wished to make use of persuasion, but your patient, psychasthenical and credulous, has succumbed to an ordinary suggestion. Make the most of the good results, but remove your patient from the dangerous epitome and set him on the broad path of rational thought."

At the end of the introduction occurs this short statement, which has more and more impressed itself upon the mind of the reviewer as years go by, and notice is taken of the part played by the mentality in overcoming sickness: "To acquire this education, **we must have** a profound sympathy for those who suffer, a complete sincerity, and so obvious a conception of our subject that our exposition of it may be obvious, too."

Dubois calls attention to the fact that even the physician who believes in the virtues of all the drugs in the pharmacopeia, nevertheless practices psychotherapeutics every day. Many do it quite unconsciously, while there are fewer who do it resolutely, and thereby exercise a moral control over their patients.

In chapter four (4) under the head of "The Problem of Liberty and Determinism," is found this statement: "The task of the physician, as that of the educator, is to observe the abnormal mentality, to find its moral or physical causes, applying to both of them the necessary and inevitable idea of determinism so as to be able, with the aid of moral and physical influences, to practice mental orthopedics."

One of the most interesting and instructive features of the work is the reporting of individual cases of cure which have come under his observation. The perusal of these reports gives one a clear insight to his manner of dealing with his patients.

It is not surprising that the work has gone through successive revisions until it has reached its sixth English edition.

THE PRINCIPLES OF PHARMACY. By Henry V. Army, Ph.G., Ph.D., Professor of Pharmacy at the Cleveland School of Pharmacy, Pharmacy Department of Western Reserve University. Octavo of 1175 pages, with 246 illustrations, mostly original. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$5 net; Half Morocco, \$6.50 net.

Probably there is no work in pharmacy that can take the place of this one by Army. It is a large octavo volume of nearly 1200 pages that covers the ground very completely, and in a very attractive manner.

Under the chapter on "Pharmacopeias" it calls attention to the fact that some 4000 years before Christ there existed manuscript, which in a crude way might be construed as a pharmacopeia of the times, while at the present time there are some twenty national pharmacopeias in force including every country in Europe, save some of the Baltic states and Turkey, Asia being represented by the pharmacopeia of Japan.

Attention is furthermore called to the fact that some drugs, aconite for example, exist in different strengths in the various national pharmacopeias. Mention is made of the fact that a prescription written under the American pharmacopeia might become a dangerous, or even fatal dosage, when filled by some other national pharmacopeia containing the same drug. And furthermore that the old term of "officinal" as applying to drugs by national pharmacopeias has been changed to the word "official." This, however, is a matter that has been in existence for the past ten years and only has its significance for the older practitioner.

The modern pharmacopeia is shown to differ from other books on medicine by being either published by the government or by receiving government approval.

It is to be borne in mind, however, that this work is not essentially a work on "Therapeutics," but rather on "Phar-

macy," although there is a world of knowledge to be gleaned by one wishing to acquire a knowledge of therapeutics.

The chapter on the compounding of prescriptions, incompatibles, etc., toward the close of the work (on page 1071,) is a most admirable one.

The work is well gotten up, beautifully indexed, and ranks at the head of all books on this subject.

OBSTETRICS. A Manual for Students and Practitioners. By David J. Evans, M.D., Lecturer on Obstetrics in McGill University, Montreal; Fellow of the Obstetrical Society of London. New (2nd) edition, enlarged and thoroughly revised. 12mo, 440 pages, with 169 illustrations. Cloth, \$2.25, net. Lea & Febiger, Philadelphia and New York, 1909.

Brevity is not always a virtue, but Dr. Evans has happily combined brevity with a lucid, forceful diction that makes his Manual comprehensive enough for the student, and a very welcome book of reference for the busy practitioner.

Theory has been given little space. The illustrations are good, though largely diagrammatic. Obstetric antisepsis is set forth briefly and clearly, an historical reference to its inception in the Vienna Maternity being followed by succinct directions for two simple, efficient methods of preparing the hands. The instructions to the nurse and patient are equally valuable.

Considerable space is given to "Toxemias of Pregnancy." One is impressed with the dominant characteristic of the book, directness, when reading these pages. Among larger and more theoretical obstetrical works this book will prove a working force in any doctor's library.

THE PRACTICAL MEDICINE SERIES, comprising ten volumes on the year's progress in medicine and surgery, under the general editorial charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume IV, Gynecology, edited by Emilius C. Dudley, A.M., M.D., Professor of Gynecology, Northwestern University Medical School; Gynecologist to St. Luke's and Wesley Hospitals, Chi-

cago; and C. von Vachelle, M.S., M.D., Assistant Professor of Obstetrics, Chicago Policlinic and College of Physicians and Surgeons; Gynecologist to the German Hospital, Chicago. Series 1909, Chicago. The Year Book Publishers, 40 Dearborn street. This volume is one of a series of ten issued at about monthly intervals, and covering the entire field of medicine and surgery. Each volume being complete for the year prior to its publication the subject of which it treats. Price of this volume, \$1.25. Price of the series of ten volumes, \$10.

This volume gives a review of the subject of "Gynecology" during the past year.

On page 8 under the discussion of the effect of "Early Rising After Laparotomy," with a view of preventing thrombosis, Fromme is reported as saying, "With the impression of this case, we shall restrict early rising among puerperae and shall advise against it in general practice." As far as its power to prevent thrombosis and embolism he denies it, according to his experience. "At the University Woman's Clinic at Marburg under Prof. Stoeckel, the former rule of nine days' rest in bed has been abandoned since the beginning of 1908. The new regime of early rising has been applied to 300 cases. An essential point is that at the beginning each patient is asked if she wishes to rise immediately. Most patients, especially those who have been compelled to work up to the beginning of labor, show themselves satisfied to enjoy a few days' rest in bed and ordinarily they wish to rise on the fourth day if they feel well. Therefore in the Marburg clinic by early rising is understood the cessation of absolute rest in bed after the fourth day, or some days later. Meyers does not consider that the objections to this procedure are of great importance. He believes that early rising has great advantages. The morbidity fell from 23.3 per cent. in the previous year to 10.8 per cent. under early rising. In the 300 cases there was neither a case of thrombosis nor of embolism. While from November, 1907, to 1908, among

197 women who remained in bed for eight days there were three cases of thrombosis and one of embolism. There was shown a greater ability to nurse the child."

On page 82 J. Bland-Sutton is quoted as having performed more than a thousand operations of various kinds for fibroids, and has lost one patient from pulmonary embolism. The case is quoted at some length.

"After making a careful consideration of the matter which is before you, there is no doubt that pulmonary embolism occurs much more frequently after hysterectomy for fibroids than after any other operation, and it is essentially liable to happen in women who are profoundly anemic from profuse and prolonged menorrhagia. This indicates that long-continued and irregular losses of blood induce some change in the composition of this important fluid which favors its coagulation.

"It has been suggested that the practice of keeping patients strictly confined to bed for two or three weeks after hysterectomy, and allied operations, is responsible for the thrombosis which is the source of these fatal emboli. Some American surgeons act on this suggestion, and insist on their patient getting out of bed a few days after such operations. This method does not commend itself to British surgeons. The author makes it a rule, even in the most favorable conditions, to keep the patients confined to bed for two weeks. No patient is allowed up until her temperature has been normal for at least three days. When patients who are profoundly anemic from menorrhagia due to fibroids undergo hysterectomy, it is a useful measure to give them 20 grains of sodium citrate twice daily in order to diminish the abnormal tendency of the blood to coagulate in the vessels. Certainly this drug should be administered

if there is the least evidence of thrombosis. Bland-Sutton have seen good consequences follow its use."

The present volume is an interesting one and well covers the subject of gynecology for the past year.

THE AMERICAN POCKET MEDICAL DICTIONARY. Edited by W. A. Newman Dorland, M.D., editor "The American Illustrated Medical Dictionary." Sixth revised edition. 32mo. of 598 pages. Philadelphia and London: W. B. Saunders Company, 1909. Flexible Morocco, gold edges, \$1 net; thumb indexed, \$1.25 net.

This beautiful little book of 600 pages, lacking two, is a delight to the eye, a comfort to the aspiring soul, and a perennial fountain of knowledge.

A TEXT-BOOK OF PROTOZOOLOGY. By Gary N. Calkins, Ph. D., Professor of Protozoology in Columbia University, New York. Octavo, 349 pages, with 125 engravings and 4 colored plates. Cloth, \$3.25, net. Lea & Febiger, Philadelphia and New York, 1909.

Dr. Calkins' book is a timely addition to scientific medicine, and one which shows the relation of zoology to pathology. The treatise is conveniently classified for students of biology into the general organization, habits, life history and development of protozoa. Following these interesting chapters, parasitism and the pathogenic protozoa are discussed in detail. The discussion of the protozoa and the cancer problem is of special interest to the medical profession—giving a complete epitome of the important observations bearing out the protozoan theory, and the history of this part of cancer research. Chapters on spirochaete infections, trypanosomiasis and smallpox add greatly to the value of Dr. Calkins' work. Numerous microphotographs and other illustrations add to the clearness of the text. A complete bibliography is appended, which makes the book especially useful for a textbook, as well as for a work of reference.

THE PRINCIPLES OF BACTERIOLOGY.
A Practical Manual for Students and Physicians. By A. C. Abbott, M. D., Professor of Hygiene, University of Pennsylvania. New (8th) edition, thoroughly revised. 12mo, 631 pages, with 100 illustrations, 26 in colors. Cloth, \$2.75, net. Lea & Febiger, Philadelphia and New York, 1909.

Dr. Abbott's textbook of Bacteriology is welcomed in its eighth edition—enlarged and containing much up-to-date material along the lines of immunity and serum therapy.

The chapters on technique are of special interest, and have been added to in a substantial manner which is in keeping with the progress made in bacteriology during the last few years. Dr. Abbott's book was one of the first textbooks used in medical schools throughout the country and in its new and enlarged form is uniformly adapted both for beginners in bacteriology and as a guide for the advanced study of microorganisms. While the comparatively few illustrations used are typical and clear, a large number would be a distinct advantage and a help to the student.

PRACTICAL DIETETICS, WITH SPECIAL REFERENCE TO DIET IN DISEASES.
By W. Gilman Thompson, M.D., Professor of Medicine in the Cornell University Medical College, New York. Fourth edition, illustrated, enlarged, and completely rewritten. Cloth, 928 pages. New York and London, D. Appleton & Company, 1909.

Dietetics is each day becoming more and more an exact science because of the attention and researches which have been centered on the subject in recent years. Thompson's work is one of the more popular text-books on this subject, more than 30,000 copies having been sold.

Here is a book of almost 1000 pages giving explicit instruction on foods, food values, methods of preparation, special conditions influencing foods, conditions which especially affect digestion, the general relation of food to special diseases, administration of food for the sick, diet for special diseases, rations, recipes, etc.

What a contrast such an elaborate discussion as the above suggests, when compared to the meagre lines on diet under the head of treatment, as found in the current text-books on medicine.

And yet, how greatly needed is just such a work as Thompson has produced. It is gratifying to note that courses on dietetics are now given in all the better medical schools and that Thompson's scientific presentation of the subject has given it a popular place in these courses.

It means much to medicine to have this changed attitude to dietetics, not only because of the better influence on the treatment of patients, but also as a factor in educating, first, physicians, and then through them the laity, so that the latter will be less liable to become the victim of irrational food faddists, of which at the present time, owing to the faith cure and associated hysterias, there are far too large a number.

Thompson's work, we repeat, will be found a most satisfactory volume by the man who wants accurate dietetic knowledge.

THE PRINCIPLES AND PRACTICE OF MEDICINE, Designed for the Use of Practitioners and Students of Medicine. By William Osler, M.D., Fellow of the Royal Society, Fellow of the Royal College of Physicians, London; Regius Professor of Medicine, Oxford University; Honorary Professor of Medicine, Johns Hopkins University, Baltimore, etc. Seventh Edition, Thoroughly Revised. Cloth, 1143 pages. New York and London, D. Appleton & Company, 1909.

Dr. Osler's marvelous capacity for wide reading and exact work and actual experience in all the newer researches in medicine must be a constant source of wonder to all thinking physicians. It is fortunate that there is such a man in the profession, who in excellent English, clearly presents the principles and practice of medicine with logical order, and incorporation at the same time of not only the best of the past, but with wise selection also, of the newer work of recent years.

In the present edition, particular attention has been given to many new

facts discovered concerning the acute infectious diseases and the chapters on Parasites, on Acute Dilatation of the Stomach, Peptic Ulcer, Diverticulitis, Parotitis, Aortic Insufficiency, and other fields in which recent researches have shed new light on well-known conditions, have been generously revised. Serum Therapy, the Surgical Treatment of Internal Diseases and even the cult of the day, as he calls faith healing, comes in for a note.

The body of the work is the same old Osler known to us all—a marvelous massing of important facts, admirably grouped, scientifically exact, graphic in style of presentation, lucid in word picture of both morbid anatomy and symptomatology, thorough although brief in diagnosis, and in spite of a tendency towards what is known as Osler's therapeutic nihilism (for which let us be grateful, since the stand of this master on drug therapy has done the profession inestimable good in weaning it from false gods), we find a most excellent presentation of treatment.

The popularity of Osler is attested by its presence on the shelves of thousands of medical libraries. Its pages and contents have a personal familiarity enjoyed by no other English text-book. This new edition has a vast deal that is new and merits as cordial a reception as has been the welcome of its predecessors.

MEDICAL SOCIOLOGY. A series of Observations touching upon the Sociology of Health and the Relations of Medicine to Society. By James Peter Warbasse, M.D., Surgeon to the German Hospital, formerly editor of the New York State Journal of Medicine, etc. Cloth, 352 pages.

New York and London. D. Appleton & Company, 1909.

Warbasse has here given us an admirable and valuable series of essays, full of suggestive thought, bearing especially on the Sociology of Health and on Medical Science and Medical Art.

It is just the book to have at hand for a half hour's reading after dinner, and the author's graphic presentation of the many important topics discussed, cannot do other than give both pleasure and relaxation to both medical and lay readers.

It is a type of book of which we shall see more in the future, and is of especial value because written by a medical man who knows, instead of a layman who thinks he knows.

PHYSICAL DIAGNOSIS. By Richard C. Cabot, M.D., Assistant Professor of Medicine in Harvard University. Fourth Edition, Revised and Enlarged, with five plates, and two hundred and forty figures in the text. Cloth, 576 pages. New York, William Wood & Company.

This is a book based largely on Cabot's own practice and experience. He has not attempted to tell all the methods described by all authors, but has emphasized those which he has found of special value in his own work.

We believe this book is easily the clearest in the English language, on the subjects which it discusses. It is of value in that it gives the reader very clear-cut ideas of methods and of their relative importance. With a number of text-books on physical diagnosis on one's shelves, this volume of Cabot's, because of its lucid and terse style and logical grouping and discussion, should easily be the most frequently consulted.

MISCELLANEOUS—THERAPEUTICAL HINTS

THE CALIFORNIA HOSPITAL DAILY PAPER.

The following extracts from various papers explain an innovation at the California Hospital, Los Angeles, that is attracting a great deal of attention:

MENTAL FOOD AT LUNCH.

CALIFORNIA HOSPITAL NURSES SERVED WITH NEWS A LA DESSERT.

A new idea has been conceived whereby the nurses of the California Hospital digest their food and the news

of the day at the same time. It has been realized by Dr. Lindley and the management that nurses should be able to talk intelligently upon the important topics of the period, but that little time outside of professional reading is used for that purpose, hence the installation of this new news gleaner system, as it were. A resume of the news of the morning papers is prepared under three heads, foreign, national and local, and this is read to the nurses while they eat their luncheon. The reading occupies ten minutes. The nurses say they like this condensed morning paper better than an orchestra. In fact, it is most enthusiastically received. From seventy to eighty nurses are present at each meal and ready.—*Los Angeles Daily Examiner*.

ISSUE NOVEL PAPER.

The latest addition to the number of daily papers in Los Angeles is perhaps one of most novel editions published in this country. This is a small paper, containing a resume of the day's news under the three heads of foreign, United States and local, which is prepared daily and read to the nurses of the California Hospital at their luncheon hour that they may be fully abreast with the times.—*Los Angeles Daily Herald*.

New idea has been conceived whereby nurses of California Hospital digest their food and the news of the day at the same time. Resume of news from morning and afternoon papers is prepared under three heads, foreign, national and local, and this is read to nurses while they eat their meals.—*Los Angeles Daily Record*.

NOVEL NEWSPAPER SCHEME.

RESUME OF NEWS OF WORLD MADE
DAILY AND READ TO CALIFORNIA
HOSPITAL NURSES.

Dr. Walter Lindley has evolved a scheme for the benefit of both patients

and nurses at the California Hospital. Each day a resume of the news is made from the morning papers and read to the seventy nurses while they are at luncheon. The object is to give the nurse something interesting to talk about when seeking to divert a patient. The idea will probably be adopted in other hospitals of the country.—*Los Angeles Daily Times*.

CONDENSED NEWSPAPER FOR HOSPITAL NURSES.

UNIQUE FEATURE OF CARE OF LOS ANGELES PATIENTS.

LOS ANGELES, Sept. 17.—A unique feature of the care of patients was introduced permanently into the California Hospital in this city today after experiments for some time had proved its value. This feature consists of a condensed daily newspaper containing a resume of all the news of the day taken from the morning newspapers. The news is divided under three heads—foreign, United States and local—and is read to the nurses while they are at luncheon. It is enthusiastically received by the nurses, who are then prepared to impart it to the patients. The therapeutic value of the plan, according to Dr. Walter Lindley, head of the hospital, must soon be recognized by all hospitals.—*San Francisco Daily Call*.

A NEW FEATURE IN HOSPITAL EVENTS OF THE DAY, CONDENSED, IM- PARTED BY NURSES—THERA- PEUTIC VALUE.

LOS ANGELES, CAL., Sept. 18.—A unique feature in the care of patients in hospitals was introduced permanently today into the California Hospital in this city after experiments for some time proved its value. This feature consists of a daily newspaper containing a resumé of the news condensed from the morning papers.

The news is divided under three heads—foreign, United States and local—and is read to the nurses at luncheon. Thus the attendants are prepared to impart to the patients under their charge the events of the day.

The therapeutic value of the plan, according to Dr. Walter Lindley, head of the hospital, must soon be recognized by all hospitals, and it is his belief that it will be universally adopted—*The St. Louis Daily Republican*, Sept. 19.

IN HOSPITAL.

[A new feature in the California hospital at Los Angeles is having the nurses read the news of the day to the patients.]

Come hither, nurse, and hold my hand,
I recently have been trepanned,
And am, as a result of it,
Not feeling just exactly fit.
Come tell me all the latest news;
'Twill dissipate my present blues.
Recite the doings of the day
And drive dull pain and care away.

Has some one hanged his erring wife,
Or slain her with a butcher knife?
Has some rejected suitor shot
The moody maid who loved him not?
Some woman, in a jealous fit,
Cut up her husband bit by bit?
Relate the murders east and west,
Those in New Hampshire are the best.

There's nothing like a first-class crime
To pass the heavy-hanging time.
Details of grewsome murder plots
Cheer countless convalescents' cots.
A job sufficiently outré
Will liven up the dullest day.
So haste thee, nurse, and read to me
The care-dispelling potpourri.

—*The Chicago Tribune*.

There exist a number of cutaneous disorders which, in the main, are due to a general bad state of the tissues. It is in these that a general upbuilding process must be inaugurated in order

As Surgeons' Hands

are often irritated, cracked and eroded by powerful antiseptics like carbolic acid, corrosive sublimate, etc., any effective means of relief cannot fail to be gratifying.

K-Y Lubricating Jelly,

liberally applied to the hands after "washing up" following an operation, softens and soothes the skin and goes far to counteract the usual irritation.

Sample tube on request.

VAN HORN & SAWTELL

NEW YORK

and

LONDON, ENG.

to heal and improve the local cutaneous disturbance. It was formerly the custom to order cod liver oil, with good results. Today, it is equally advantageous to give the cod. ext. ol. morrhuae comp. (Hagee), which acts not only as well, but better, and is devoid of grease. —*American Journal Dermatology*.

INDICANURIA: ITS SIGNIFICANCE, DETECTION AND TREATMENT.—The physician who is in touch with contemporary medical literature must be impressed with the importance of Intestinal Auto-Toxemia as a causative factor of many diseased and disordered conditions, and of Indicanuria as a diagnostic indicator of the degree of toxemia from which the patient suffers. Indicanuria is the term used to denote the presence, in

the urine, of indoxyl-potassium sulphate, a decomposition product of indol, a substance generated in the intestine, as a result of the action of putrefactive bacteria upon proteid or albuminous material. It is of distinct diagnostic value as an index of the extent of intestinal putrefaction and of the degree of the constitutional absorption of toxic material thus generated. When any appreciable percentage of indican is detected in the urine it is always wise to cut down the proteid elements of the diet, (meat, eggs, etc.). In addition to dietetic restrictions, a liquid combination exercising cholagogue, antiseptic and digestive properties, such as chologastin, is extremely useful. This preparation, by virtue of its contained sodium salt of the natural bile acid, (sodium glycocholate), is a true *physiologic* cholagogue, which materially increases the formation and secretion of the biliary fluid. The natural sodium salicylate (from oil of wintergreen) supplements the cholagogic activity of the bile salt and also serves to liquefy the bile. At the same time, it acts as an intestinal antiseptic. The pancreatin (which, in Chologestin, is deprived of its inert mucinous material) aids in the digestion of the albuminous foods and the sodium bicarbonate adds the necessary alkalinity to the combination. With the physiologic stimulation of the hepatic cells and the consequent increased activity of the liver, the existing intestinal putrefaction is overcome and the absorption of toxic products prevented. The manufacturers of Chologastin, (F. H. Strong Company, 50 Warren street, New York) will be pleased to send formula, samples and literature to any physician requesting same, together with a handsome "Indican Color Scale," with approved test and interpretation. The test for Indican is simple and readily applied.

It is believed that the glucoside digitoxin represents most closely the combined therapeutic merits of the several active constituents of digitalis leaves, and until Cloetta's discovery of a method of isolating this important principle in the amorphous, or water-soluble state, the crystalline or almost insoluble digitoxin was employed with the ever-present danger of overlapping of doses, or cumulative effects, resulting from its very slow absorption.

Digitoxin amorphous Cloetta, in the form of the aqueous solution, Digalen ("Roche"), is absorbed promptly. Its action is manifest within a few minutes if given intravenously; within a short time if given per os, enema or subcutaneously. There are no cumulative effects within the limits of normal dosage, and no gastric disturbances occur. "The most delicate stomachs retain and absorb it readily," declares a well-known physician.

In answer to the query, "In cardiac therapy, which preparation of Digitalis is most serviceable," the editor of *American Medicine* spoke of Digalen as follows:

"In regard to Digalen we are free to say that it promises much. Reports of cases in which this preparation has been used seem to indicate that it is a valuable addition to cardiac therapeutics. It has certain advantages and it certainly is of a standard strength and uniformity."

It is wise to insist upon having an original bottle of 15cc. Digalen dispensed on your prescriptions.

OZENA.—In the successful treatment of all forms of fetid catarrh, no remedy surpasses SABALOL SPRAY (J. C. Morgan & Co., N. Y.). It not only promptly overcomes the disagreeable odors that make life a burden for the sufferer, and those who come in con-

tact with him, but also rapidly corrects the underlying conditions. Rhinologists have found Sabalol Spray an application of broad utility in the successful therapy of nose and throat diseases.

With many physicians the first thought in uterine bleeding is the curette. The hemorrhage frequently is due from a lack of tonicity of the blood vessels and muscular tissues of the uterine walls and to curette in these cases is unnecessary, and frequently dangerous. The value of Viburnum as presented by Hayden's Viburnum Compound, in these cases has been conclusively proven by years of clinical experience. It imparts tone to the relaxed uterine blood vessels and walls, and in many cases makes curettment, with its attending dangers of infection and perforation, unnecessary.

BIOLOGICAL THERAPEUTICS is a valuable little work just issued by Parke, Davis & Co., Detroit, Michigan. Send a postal request and receive a copy free. The publication consists of fifty-two pages, exclusive of the cover, and appears in brochure form. It is handsomely printed on white enamel paper of first quality and bears in colors a profusion of half-tone illustrations. The title is "Serums and Vaccines." A brief chapter on the origin and development of biological therapeutics, with an interjected hint as to what the opsonins may have in store for us, constitutes the introduction. Then follow chapters

on serum—antidiphtheric, antitetanic, antistreptococcic, antigonococcic, anti-tubercle and antivenomous; on tuberculin; on vaccines, including the new bacterial vaccines which are exacting so much attention from the medical world; on organo-therapy, its development, and some of the important products that are associated with it.

As an intestinal antiseptic we have nothing better than salol. The consensus of opinion is in this direction. When we add the antipyretic and anodyne effect of antikamnia, we have a happy blending of two valuable remedies, and these cannot be given in a better or more convenient form than is offered in Antikamnia and Salol Tablets; each tablet containing $2\frac{1}{2}$ grains antikamnia and $2\frac{1}{2}$ grains salol. The average adult dose is two tablets. Always crush tablets before administering, as it assures more rapid assimilation.

Battle & Co., Chemists, 2001 Locust street, St. Louis, have issued No. 10 of their dislocation chart series and will send it and the nine previous charts free of charge to any physician on request.

In the anemia of infancy caused by diarrhoea, or malnutrition, Pepto-Mangan (Gude) is an efficient and palatable remedy. It brings promptly increased vitality, better color, a return of spirits and a better assimilation of nourishment.

CALIFORNIA HOSPITAL NURSES' ALUMNAE ASSOCIATION NOTES.

The regular monthly meeting of the California Hospital Nurses' Alumnae Association was held the last Monday of September at the directory rooms, 1103 West Eighth street.

Several of the members recently returned from Mexico and Arizona, attended, making the meeting especially interesting, giving a detailed account of their experiences.

In the absence of the president (Miss Johnson), Mrs. Durbin presided.

Miss Thomas, superintendent of the hospital in Morenci, Ariz., and Miss Bice of the hospital at Clifton, Ariz., gave a report of their work in those institutions. Miss Kent and Miss Miller told us much of interest concerning Mexico.

Several new names were proposed for membership to the association to be voted upon next month. After the business closed, the social part of the meeting was added to by the serving of delightful refreshments by Mrs. Middleton and her daughter.

Miss Richards, class '08, has accepted a position as head nurse at the California Hospital. Miss Hart has been transferred to the obstetrical department in the same institution.

Miss Barna has returned from a visit to the East.

Miss Carter has resigned as superintendent of the Southern Pacific Emergency Hospital and intends to enter the field as private nurse.

Miss Ensign is traveling in the East.

Miss Leslie is visiting in Canada.

Miss Rousseau is able to resume her chosen work after almost a year's illness. We sincerely congratulate her upon her recovery.

Miss Eva Johnson has just returned from a three months' visit to the East. Miss Johnson was sent to Minneapolis as delegate to attend the National Associated Alumnae Association held in June. We hope to hear an interesting account of that convention from her at our next meeting.

Miss Graves, who has been superintendent of the County Hospital in Ventura, has returned to Los Angeles. Miss Sally Cartmell has accepted the position in Ventura, to succeed Miss Graves.

Tuesday, September 14, was the date of the banquet given by the head nurses of the California Hospital in honor of Miss Lampman, who for three years has held the position of superintendent of nurses in that institution. The banquet was held at Levy's, and was a most enjoyable affair. Miss Lampman will return to her home in New York. Miss Williamson, who has assisted Miss Lampman in the training school, will succeed her. Miss Cochran was chosen as assistant superintendent.

A recent letter from Mrs. Harshaw Wilson announces an active field for private nurses in Bakersfield.

Mrs. E. P. Durbin has recently returned from her vacation at Coronado and Fallbrook.

It is said that tooth powder should be filtered through two thicknesses of ordinary silk. In fact, that no tooth powder should be used which will not pass through ordinary silk, for it will cut away the teeth; but unless a tooth powder is coarse enough to produce some friction it will not cleanse off the tartar, etc. The point to impress on your patient is not to use a powder more than once or twice a week. If the powder has no tendency to wear away the enamel, then it will not clean the teeth. Nature keeps up a constant growth of enamel in healthy teeth.

As these are days of preventive medicine, it is well to caution one's patients of the imprudence of getting out of bed without protecting the feet, so common with women. Mundé says many an attack of cellulitis brought on by sudden, though momentary, exposure of the feet to cold may be traced to this imprudent act. He says it has caused more diseases to women previously healthy than could result from any other act of imprudence.

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THE INDIANA IDEA OF HUMAN STERILIZATION.*

BY H. C. SHARP, M.D., INDIANAPOLIS, INDIANA.

By the Indiana Idea is meant that we are establishing a method through a surgical procedure, by which we prevent people, of mental defect and transmissible physical disease, from procreating without, in any way, endangering life, or incapacitating them in their enjoyment of life, health and pursuit of happiness other than the loss of procreative power.

This is done upon the male by what is known as severing of the vas-deferens. This operation requires but a short space of time, with very little pain, not sufficient to require an anaesthetic, either local or general, and does not endanger, in any way, the life of the patient, nor prevent him from engaging in his daily work for a longer period of time than it requires to do the operation.

I selected a four week old male calf, did a double vasectomy and observed development. There was no impairment of the development of the Genitalia. He assumed the normal char-

acteristics such as the thick neck, curly face and deep basso voice and from all outward appearance was a normal specimen of his sex. Likewise, I took a female of the same species, and after I severed the oviduct I observed that she developed sexually to the point of pubescence as any other of her variety do. She menstruated regularly and had all the outward appearances of a normal female which had not borne offspring.

I have also severed the oviduct in an epileptic female child of 11 years of age. At 14 she menstruated and has continued to menstruate every 28 days and has full bust development. Feminine in her ways and has no outward appearance of being unsexed.

It has been my misfortune that I have not had an opportunity to operate upon a male child prior to the age of puberty. However there is no doubt in my mind but that he would go through to complete sexual development.

*Written for the Southern California Practitioner.

I present these facts to you solely for the purpose of refuting the prevalent idea that this operation is a mutilation or a punishment to the individual.

In the female, the operation is slightly more serious, as you have to reach the oviduct through an abdominal wound, this requiring a general anaesthetic, with from a week or ten days in a ward of the hospital. The operation is no more dangerous to life than is the one performed upon the male, if in the hands of a skillful operator.

In the case of the male, the end of the vas nearest to the testicle is left patulous in order that the normal secretion of that gland may be poured out around the blood vessels and lymphatics of the spermatic cord, where it is reabsorbed just as any fluid injected hypodermatically is absorbed. Thus appropriated to the system, it acts as a wonderful nerve and muscular tonic, and it has been conclusively proven that this secretion, when thus reabsorbed, has a remarkable influence upon the nervous system. Mental and physical vigor and the activity of the spinal centers are greatly improved, not only in the case of general prostration and neurasthenia, but also in the case of the age.

Brown-Sequard demonstrated this fact a number of years ago in the hypodermatic injection of the above referred to secretion from the goat and the sheep. The result was so impressive in its wonderful dynamogenic effect that he heralded to the world that he had discovered the Elixir of Life.

Poehl asserts that he has observed very beneficial effect upon the metabolism of the body by the injection of this secretion, and he claims that it exercises extraordinary action as a physiological tonic. Zoth and Pregal claim that they have obtained very conclusive objective proof of the stimulating action of the sexual secretion up-

on the neuromuscular apparatus in man. They find that the injection of this substance causes not only a diminution in the muscular and nerve fatigue resulting from overwork, but also lessens the subjective fatigue sensation.

What has been said of this secretion applies equally to the secretion in the ovary in the female, and it undoubtedly plays a very important part in the general nutrition. In addition hereto, in gynecological practice it has been observed when there is a premature menopause accompanied by distressing symptoms, mental and physical, such symptoms have been materially alleviated by a hypodermatic injection of the ovarian secretion.

One argument that was presented against each of these operations was that if they were performed upon persons before reaching the age of puberty, it would arrest sexual development. The fallacy of this I have demonstrated to my own satisfaction, both upon the human being and the bovine.

We have received no antagonism from the medical profession, nor the sociologist and are encouraged by the ministry itself, but have been confronted with a protest from the great and mighty legal profession, whose business it is to try and find flaws in any law that is written, where there is some place along the line a conflict with some instrument which has been previously written, and then rise up with great pomp and say "Why, it is unconstitutional." Not being one so profoundly learned, I am not prepared to state whether the law of Indiana as written is one that is, or is not, constitutional. That which I wish to bring before the people is that it was enacted for the sole purpose of benefiting mankind, not alone the present, but infinitely more the future generation. Through this method, we not

only relieve society of the burden of caring for the great army of public dependents, but we will equally relieve the great mass of weaklings from striving to care for their issue, who, in fact, are not competent to care for themselves. So, in reality, it is a beneficence and not a punishment, and if our great and learned legal brothers would take a broader view of benefiting humanity, instead of using a microscope to ferret out some technical contradiction between law and constitution, they would be by far a greater benefit to our race. I would, then, like to urge upon you that it is not to retract from the Indiana law but to add to and extend its scope.

We have for many years realized the wisdom of restricting marriage in the unfit, but how much better it would be if we would add to our restriction that no one of this class should marry without first submitting to this operation. If this were the case, it would be possible for many of these people that are now deprived from the happiness of domestic life, to enjoy the same without jeopardizing the public from the additional issue from such

relation. I believe that it would very materially lessen the number of illegitimate children as well as decrease the population of our county poor asylums, almshouses and old ladies' homes.

There is danger of abuse of this operation, as it is a well-known fact among the medical profession that many women have surgeons to perform the very grave operation of ovariectomy for the purpose of preventing them from bearing children. Thus you may readily see how popular an operation so simple as the one above may become with people who wish to avoid the responsibility of caring for their offspring.

I, therefore, seriously advocate a restrictive method, making it a criminal offense for any one to submit to or perform this operation unless it be legally authorized.

I humbly submit these few ideas for your serious consideration, hoping that you will fully realize the importance of the same and join hands in the immediate work of restricting procreation in the unfit.

Board of Trade Bldg.

BLADDER RESECTIONS.*

BY GRANVILLE MAC GOWAN, M.D., PROFESSOR GENITO-URINARY SURGERY IN THE LOS ANGELES COLLEGE OF MEDICINE OF THE UNIVERSITY OF CALIFORNIA.

Extensive resections of the bladder are not of common occurrence, and I hope that the report of this series of successful cases will be of interest to this Society, and to the profession at large.

Case 1 shows what extreme mutilation the base of the bladder and posterior urethra may undergo, and urinary control be regained thereafter.

Cases 2 and 3 direct attention to the fact that we may fearlessly remove all of the bladder but a very small

portion of its base, with hope that the organ will renew itself and become a potent reservoir. They also illustrate what Judd so ably called attention to at the last meeting of the A. M. A., that the proper approach to attack these extensive growths, is by way of the peritoneal cavity.

Case 4 is introduced only for record. The operation was valuable to the man, because it made his last days painless and approximately comfortable.

*Read by invitation before the conjoined meeting of the Medical Societies of Oregon, Washington, Idaho and British Columbia at Seattle, July, 1909.

CASE I.

Mr. J. J. P., age 60 years. First seen Jan. 13, 1905.

Complains of frequent urination which commenced about Dec. 1st, 1904. No pain. The frequency at the present time is half hourly during the night, and hourly during the day.

No history of injury, gonorrhoea or syphilis. No family history of cancer.

Examination. He is a small, anaemic and feeble person, with no indication of localized disease other than that of the urinary organs. He has a narrowing of the calibre of the urethra to 20F at 12 cm. from the meatus; the urethra is irritable and grips the bougies spasmodically and at certain points, bleeds easily. The prostate is moderately enlarged and very dense and hard, and the indurated tissue is directly continuous into and about the entire left seminal vesicle. There is no enlargement to be seen in the bladder, but the space anterior to the ureteral mouths appears infiltrated as does also the bladder base upon the left side. Bladder capacity 3600 cc; residual urine 150 cc. Urine, acid, and contains a marked quantity of albumen, much pus but no casts, and no blood.

Diagnosis. Cancer of the prostate, left seminal vesicle, and probably the bladder base.

He was prepared for operation by careful catheterization, lavage with silver solutions, and urotropin, for a week.

October 2, 1905. Under spinal anaesthesia of tropococaine, through a incision, the prostate was exposed through the perineum with the idea of fully satisfying ourselves of the feasibility of its removal. It was found impossible to enucleate any part of the prostate and I determined to make an effort to remove it by dissection. A very good exposure was obtained by the use of anterior and lateral tractors. Traction was made upon the prostate

by two stout double silk threads passed through the capsule into the body of the organ and by the finger of the operator inserted into the prostatic urethra. As a preliminary step, the membranous urethra was severed transversely, and then the prostate in its capsule with its urethra was detached from its ligaments anteriorly, posteriorly and laterally by dissection with blunt pointed scissors, with the finger covered with gauze and with a dry dissector, until it together with the lower part of the bladder could be drawn into the perineal wound. The prostatic urethra was then laid open and the right side of the prostate cut away together with a strip of the bladder wall, including anteriorly the portion that comes immediately in contact with the prostate, and posteriorly a strip extending obliquely upward from right to left to the center of the trigone at a point beyond the hardened collar and about one-half inch in front of the interureteral line. The left side, with the left seminal vesicle attached, was separated from the rectum posteriorly by careful dissection to as high a point as possible. An incision was then made obliquely upward and outward from the end of the cut on the right side through the tissues of the bladder, and the seminal vesicle and the ampullae of the vas with the hardened tissues surrounding them separated from above and removed. In this later manipulation the peritoneal cavity was opened as free as was necessary to completely remove all of the tissues that were manifestly diseased. A part of this had to be done in the dark.

There was considerable bleeding, chiefly venous, during the operation, but not nearly so much as one might expect from the very plentiful blood supply of these parts. Forceps placed to control the arterial bleeding from the cut bladder surfaces kept control of that organ, which, of course, would

promptly fall back into the pelvis after it was severed from the organs removed. The aperture in the peritoneum was packed off and a survey taken of the wound was certainly anything but reassuring. It did not look as if the membranous urethra and the bladder could be united, for the mass of bladder was irregular in shape and of considerable size. The bladder was packed lightly with a strip of gauze to absorb the urine as it was secreted, and the shaped space in its walls at the left were approximated as closely as possible with a continuous through and through suture of No. 1 Chronacised 10 day gut; this was very difficult sewing.

The peritoneum was brought together, room being left for a small drain of sterile gauze. The bladder could not be brought down so as to make a close approximation to the membranous urethra, so its attachments were loosened with the finger anteriorly and the membranous and bulbous urethra dissected partly out of its beds and split through the center of the tube laterally for the space of 2cm. A few interrupted sutures of chronic gut were introduced antero-posteriorly on the right side, closing the bladder on that side. There was now a kind of new bladder neck. The superior wall of this was then united to the anterior flap of the membranous urethra by two sutures of No. 2 gut, passed through the muscular structures of each and tied outside of or on the back of the flap. The mucous surfaces were then united by a continuous suture of No. 0 gut. The posterior surfaces could not be brought together. The bladder was brought as far forward as possible, and united to the sides of the cavity by a few interrupted sutures. The posterior flap of the membranous urethra was also drawn as far toward the bladder as

could be done without undue tension and united to the sides of the cavity.

A catheter was inserted through the urethra into the bladder, and, after a drainage tube was inserted through the perineal wound, the muscles in front of the rectum were united and the edges of the external wound brought together.

We hardly dared look for a recovery, for the operation had been very long, and the amount of blood lost an alarming one for a subject originally extremely anaemic, and the peritoneal cavity had been soiled with foul urine. The idea that he should ever regain urinary control was never even thought of. The hope only was that if he did survive, a urethral channel might be re-established and instead of leaking through a perineal fistula, he might be able to wear a urinal.

He rallied very well. The gauze drainage was removed on the third day. The perineal drainage was finally removed on the fourth day. The catheter was removed and replaced every two days for fourteen days, after which it was left out. The bladder and urethra were irrigated twice a day, once with a solution of silver nitrate 1-30,000 and once with Thiersch solution for six weeks. The perineal wound closed in three weeks. He commenced to obtain urinary control in the sixth week at night, and in the eighth week during the day and ultimately passed all of his urine comfortably at intervals of about every two hours. He lived for thirteen months after the operation and is said to have died of cancer of the liver.

The tumor was an adenocarcinoma, and was present in sections from the prostate, seminal vesicle, and the mass removed from the bladder.

At the time of this operation I was not aware of a somewhat similar procedure devised and put into practice by Dr. Hugh M. Young, and reported by him.

CASE II.

January 6, 1907. D. W., Male. Age 8½ years. Patient of Drs. Evans and Beckett.

Complains of frequent and painful urination. There is an irregular and indurated tumor beneath the skin of the lower abdomen and involving the left rectus muscle, extending half way to the umbilicus.

History.—Mother's father died of tuberculosis. Mother's sister died of cancer of the uterus, at age of twenty-nine years. Family history otherwise negative.

His bladder trouble commenced in November, 1906, and was preceded by an indefinite history of perityphlitis and painful diarrhoea. The urine was said to contain a moderate amount of pus, but no blood. Bladder capacity 60 cc. I saw him first upon the operating table.

The tumor seemed to lie along the line of the urachus. We removed about three inches of the left rectus muscle for two-thirds of its width and its entire thickness. The mass spread out across the vault of the bladder and necessitated opening the peritoneal cavity in order to reach and determine its extent. The patient was placed in an extreme Trendelenburg position and the intestines walled off by moist gauze packs. The peritoneal layer of the bladder, which was not diseased, was incised and turned back and the bladder partially shelled out of its bed by blunt dissection. All of the diseased tissue was freely cut away and but little more than the trigone was left when we finished its removal. Neither ureter was involved in the growth. It included all of the vault, the greater part of both sides, the anterior part almost to the urethra, and much of the base. The cut edges were partially approximated with cat-gut about a large De Pezzer tube, the peritoneum closed and the skin and muscle wounds

brought together about the tube. The drain was removed on the sixth day and a smaller one inserted. This was removed permanently at the end of the second week. The power of urination was restored in the third week and the wound closed at the end of ten weeks, but reopened two weeks afterward, and a fistula persisted for six weeks more.

Present Condition. He is attending school regularly, is robust, lies all night, and retains and expels a pint of urine. The urine is normal in its chemical and microscopical aspects and the urinary frequency is normal.

Sections removed from the growth were examined by a competent pathologist and reported to be a "Nontuberculous granuloma." This is anything but satisfactory, but before we could have further examinations made, the specimens were lost.

CASE 3.

February 19, 1909. Margaret F., Telephone Operator. Patient of Dr. Day. Age 27 years.

Family history negative. Personal history negative until after marriage. In 1902 she had a child and six months afterwards she contracted gonorrhoea, which extended to the womb, but did not involve the tubes. Pain from the endometritis caused her to seek examination and advice at various times from 1903 to 1907, but no tumor was ever found during the bi-manual examinations, and there were no bladder symptoms.

In July, 1907, she noticed slight dysuria which at intervals became quite severe. Microscopical examination of the urine showed a little blood and much pus and epithelial debris. There was a trace of albumen in the centrifuged urine. In September the attacks became more severe and more frequent, there was an increase in the amount of both blood and pus and the amount of albumen became great

and entirely out of proportion to the amount of blood and pus. In November the pain and frequency became so great as to require the continuous use of opiates. A cystoscopic examination was made and a jagged, ulcerated tumor was seen in the superior bladder wall. From its surface hung many shreds of pus and tissue debris.

On Jan. 4, 1908, Dr. Day did a suprapubic cystotomy upon her for exploratory purposes. The surroundings and lack of assistants precluded an attempt at radical extirpation. He found that the growth was too large to remove through an extra-peritoneal incision. February, 1909. We opened the peritoneum with the patient in the Trendelenberg position and walled off the intestines with moist salt packs. The growth involved a part of the peritoneal coat somewhat larger than a silver dollar, directly in the center of the vault of the bladder. This was included within an oval incision in the sound tissues about three-fourths of an inch away from the growth, and the rest of the peritoneal slit and dissected back on each side so as to give free access to the bladder.

The tumor was about the size of a large lemon, was rather sharply circumscribed and involved about two-thirds of the bladder. The bladder was loosened from its bed, lifted out from the pelvic cavity as much as possible, and all of the diseased structures, including the skin around the unhealed fistula from the former operation, removed in one mass. The incision for this purpose was made about three-fourths of an inch away from the obviously diseased tissues. The cut edges of the viscus were brought together and sutured as closely as possible without strain, leaving a space circular in shape anteriorly, unclosed.

A dam was prepared by suspending the uterus to the sheaths of the recti muscles. The sutures were of No. 1 Chronic gut and passed through the

outer surface near the fundus, and did not enter deeply into the substance of the womb. The healthy flaps of peritoneum, stripped off from the bladder, were used to wall off the peritoneal cavity and served very well for this purpose. A large rubber drainage tube wrapped with gauze was employed for cul de sac drainage, to act in case of leakage through the suture line. The abdomen was closed and an iodoform gauze drain inserted over the line of sutures in the muscles, its end appearing in the wound below. Another was placed between the superior surface of the bladder and the inferior surface of the base of the peritoneal flap.

The wound in the abdominal tissues directly over the bladder was also circular, the skin, fat and muscle around the fistula having been cut away with the tumor, leaving a cavity 5 cm. in diameter, into which gauze was loosely packed. A retention catheter was inserted through the urethra and the head of the bed elevated, after recovery from the anaesthetic, to get the benefit of gravitation drainage. After the first 24 hours the bladder was irrigated daily with a solution of silver nitrate 1-15,000. The gauze drains were all permanently removed within the first six days. The bladder was so small that it would hardly hold the small mushroom-like expansion of the retention catheter. But by care and attention the drainage was excellent from the start, and in about four weeks became perfect. The wound granulated in six weeks and in ten weeks she left the hospital urinating naturally and holding her urine for three hours.

At present the urine is clear and free from albumen. She sleeps all night without wetting the bed, which she did for a short time after the bladder had healed up, and goes for five hours during the day without any desire to pass water, and when she urinates there is no pain or discomfort, and

she empties her new bladder. She has gained 20 pounds in weight. There was no enlargement of the pelvic gland to be felt at the time of operation. The tumor is a carcinoma.

CASE 4.

J. T. C. Age 41. A coachman, and a married man, came to me April 2d, 1909, complaining of dysuria, accompanied by physical weakness and loss of weight.

History. In 1891 he contracted gonorrhoea and was treated for two years for this disease by various advertising physicians, some of whom so mishandled him with the rough use of steel sounds that his bladder became infected with tuberculosis at the points where the instruments bruised the walls, on the superior quadrant, from whence it spread to the rest of this organ. The frequency and pain became so unbearable, that he applied to me for operative relief. On October 20, 1893, I did a *sectio alta* upon him and after curetting the tuberculous foci, cauterized each with pure carbohc acid or the mitigated stick of silver nitrate. The superior wall of the bladder was thickened, and there was a pericystitis with dense adhesions of the anterior peritoneal fold. He made a good recovery, and in March, 1894, his bladder capacity was 400cc. and no trace of his tuberculosis, other than a few brown pigmented patches, could be seen through the cystoscope. I did not see him again until April 2nd, 1909. He stated that he had remained perfectly well for 12 years, and worked at his profession in New York and London, and had married.

Late in 1907 he had a painless hemorrhage from the bladder, which was repeated several times that year. In the spring of 1908, he noticed increased frequency in urination which was soon followed by pain and the advent of pus. He sought aid at a New York Hospital, was cystoscoped and subjected to a perineal cystotomy

for drainage. This was done in October. The wound was allowed to heal and when he had recovered from the operation, he was advised to return to California.

Findings. An emaciated person who shows the effects of vigil and lack of rest. Urethra and testicles normal; prostate and seminal vesicles, apparently healthy. The bladder, bimanually, feels enlarged and its coats indurated. Urine very purulent and contains some blood.

A cystoscope meets with obstruction immediately after entering the bladder, the image is that of a myriad of lights, the multiple reflection of the globe upon a multitude of small air bubbles **clinging to papillary eminences** hanging from the dome of the bladder.

Diagnosis: Malignant disease of the bladder wall, the extent of which renders successful surgical interference very improbable.

There are no tubercle bacilli to be found in the urine. The man suffered so much and his case seemed so pitiful, that I consented eventually to operate him, I to do what seemed best for the relief of his pain.

March 16, 1909. Intraperitoneal resection of the bladder for cancer. The patient was placed in the Trendelenberg position and an abdominal incision extending almost to the umbilicus, was made in the middle line.

The intestines were walled off by moist salt pads, the peritoneal coat of the bladder incised and reflected, and the bladder opened in the median line to the trigone. Only a partial resection of the organ was contemplated, as from the preceding cystoscopic examination it was believed that the trigone and the vesical neck could be saved, but close inspection showed that though the mucous membrane of these parts seemed smooth, the disease had invaded nearly all of the muscular tissues beneath it. The patient's suffer-

ing had been so intense for several weeks that I considered the attempt at a complete removal of the bladder justifiable, and with much difficulty succeeded in accomplishing it without opening the rectum. The prostate and seminal vesicles did not seem to be involved in the growth, nor did the urethra. The right seminal duct was accidentally severed and removed with the bladder. Both ureters were dissected out of the bladder wall. Neither appeared to be cancerous. There was no enlargement of the retroperitoneal lymph glands except those lying in the bifurcation of the iliac blood vessels; of these, from the right side I removed two, and from the left side one; all were greatly enlarged and indurated.

The bladder could not be removed whole. The varying depths of its involvement by the growth rendered it brittle in spots and it had to be removed piecemeal by scissors and rongours. The amount of hemorrhage was astonishingly small. The greatest difficulty I encountered was in detaching and removing the diseased bladder without opening the rectum, but inasmuch as the wall of the rectum had not itself become cancerous, I found the line of cleavage existing naturally in the loose cellular tissue between these organs, if anything, bet-

ter developed than it is normally. After I had detached and removed all of the bladder, the ureters, which now lay loose in the wound, were stitched to the tissues in the bottom of the cavity, and the reflected peritoneal bladder covering brought together with a continuous suture of catgut, thus forming a wall for the protection of the peritoneal cavity. The abdomen was closed and the cavity, or urinary sink as it might be called, drained by an extra large de Pezzer tube, and two cigarette drains brought out through the lower end of the supra-pubic incision. The cavity was gently irrigated through the urethra and out through the drain until all oozing had stopped.

The cigarette drains were removed on the second day. The tube drained very nicely. The man lived for eight days, without pain, and without definite uraemic symptoms. The operation was prolonged and he never recovered the desire for food.

No effort was made to suture the cut ends of the ureters to the urethra, for they could not be brought down, without what seemed to me too extensive dissection. Stitching them into the intestine was not considered, as the eventual result of this procedure seems always to have been bad. The tumor is an epithelioma.

TRACHOMA.*

BY DANIEL W. WHITE, M.D., DEPARTMENT OF THE INTERIOR, UNITED STATES INDIAN SERVICE, PHOENIX, ARIZONA.

Trachoma is a specific contagious form of conjunctivitis, extremely chronic, lasting for months and even years, and when left to itself causes serious and permanent impairment of vision and very frequently blindness. The word trachoma is derived from the

Greek, *traxus* (TPAXUS), meaning: the rough, uneven granular condition of the conjunctiva. The Romans designated it as "*Lippitudo*:" to be bleary-eyed. It is also known as *ophthalmia egyptiaca*; *ophthalmia purulenta chronica*; *conjunctivitis graulosa*; *granular*

lids; weak eyes; eye itch and mulberry eyelid.

ETIOLOGY.

Trachoma is caused by micro-organism, which is at present found in the virus, but has not been yet isolated. At the present time trachoma is a chronic condition in the United States; I may add in the whole world. It has lost most of its severe sequelae and after the first half of the last century diminished in extent throughout the world. Hygiene and better sanitary conditions are the chief factors in its abatement. It spreads by direct or indirect transference of the moist discharge from one person's eye to that of another. Finger tips or thumbs are the ordinary means of removing discharge from the eyes. This discharge may be communicated to others who may handle or use the articles infected by the discharge from the hands of the affected person. Flies also play an important part in the spread of the disease. It also travels by channels of commerce and is conveyed by any itinerant. The family is the primary nidus of infection. Formerly the army held first place. Boarding schools, asylums, prisons and even private schools disseminate it widely. People occupying low huts having small windows with deficient ventilation and clay floors; or two persons sleeping in one bed or using the same towel with small amount of soap are liable to contract it if exposed. Swimming pools are breeding places. Those occupied as launderers, tailors or dressmakers are always exposed. Some authorities claim that it is infectious and contagious in all stages. This is an unsettled question. Fostered by ignorance, filth, poverty and social misery, it is today essentially a disease of the poor. Even in higher social circles among authorities where their attention is not directed toward it, it still is not regarded the plague that it is. Some of the most ignorant do not contract it. They do not use towels and sleep in the open.

In 1823, Napoleon's version was as follows: "The ravaging eye scourge of our time brought fearful havoc amongst the armies and populace of Europe. Thousands lost their sight. Hospitals were erected for the blind. In 1802-1810, 2300 men were blinded by trachoma." Kuhnt, one of the foremost experts in trachoma, in 1897 wrote, "75,000 people have trachoma in Prussia alone, and no class is perfectly free." Cargo ships manned by slaves were lost at sea due to blindness of sailors, produced by trachoma. This is only a graphic description of the plague. In 1897, the United States Treasury Department was directly responsible for the noble efforts put forth and in enforcing the immigration laws which declared trachoma to be a dangerous contagious disease, thus prohibiting immigrants affected with it from entering the country. The Public Health and Marine Hospital Service are to be congratulated for their efforts since 1889, since all trachoma cases are sent back to their embarkation posts. In 1889, 300 cases were deported. The ratio of deported immigrants to the entire number applying for entry was one to one thousand.

COUNTRIES.

Trachoma is found in all countries. Greeks spoke of it more than 2000 years ago. China and Japan are hot-beds. Chinamen have their eyelashes combed and brushed, hence the spread of the disease. In Egypt, the land of the eye sufferers, the one-eyed people, the blind people, it is a mixed infection, koch-weeks and gonococci micro-organisms being found with the trachomatous discharge. In Palestine, the blind beggars' land, it is endemic. It is prevalent in the South American states and is very prevalent in Mexico. Montreal furnished 500 cases out of 14,000 eye patients. Russia leads all European nations in the prevalence of the disease. The Russo-Turkish war was a calamity of disease: blindness.

RACE.

All races are affected. The negro has some immunity. The Aryan Semitic Mongolian races suffer with equal and terrible frequency. The Indians of the United States would not be more susceptible than the whites if they lived under hygienic conditions and employed sanitary measures and had more nourishing food.

U. S. DISTRIBUTIONS.

Trachoma is found in 65 to every 1000 eye cases in Illinois, and in New York City 325 cases in 8000 eye patients examined in work houses. In the Southern States, it will be found, especially in Louisiana, Mississippi and Southern California. The percentage is from .5 to 2. The United States at large are organizing to fight it. In Pennsylvania stringent measures are used to find all cases and to isolate them until well. Look for it and you will find it.

AGES.

All ages are affected. Young are more susceptible than the old. I think girls are more than boys and men more than women. Hygienic measures of sex will account for this.

CLIMATE.

Altitude, latitude and nature of soil have no marked effect in producing trachoma. The sun, the heat, and the dust cause an irritating influence on the conjunctiva and make it more susceptible, but on the other hand trachoma is prevalent in cold climates. We find it in the north as well as in the south, in the United States, and it is found where sunshine is a daily occurrence.

The incubation period is an unsettled question. Trachoma being a chronic condition, it is hard to note its incipency. My youngest case found with the disease was a girl of four months. By watching the normal cases very frequently, and examining them at frequent intervals, I have made positive diagnoses in five weeks. The incubation period may be even shorter. This

disease impairs the working capacity of the people, the fighting power of the state and ruins the life and happiness of whole families. In some countries it seems almost impossible to make any successful headway against its ravages.

As long as the cornea is not involved, trachoma appears to be such a harmless complaint that the victims are not aware of its presence.

I consider the above statement worthy of deep study.

PATHOLOGICAL ANATOMY.

The microscopical appearance is of fleshy warts or villi of the intestines. A ridge of tissue is prominent in some cases where there are no follicles on the lower lids.

The conjunctival sac is opened anteriorly at the palpebral fissure. It is divided into three parts: (1) The conjunctiva of the lids; (2) Of the fornices; (3) Of the globe. The palpebral conjunctiva, like that of the fornix, is covered by cylindrical epithelium and firmly attached to the tarsus, at which point it is quite smooth and has no adenoid layer of tissue. At the third month the conjunctiva shows signs of adenoid tissue in a diffuse infiltration with lymph cells and formation of microscopical follicles. The conjunctiva becomes folded, forming furrows, alternating with low ridges. Tubular glands are found in the palpebral conjunctiva and in the fornices; acinous glands of krouse. The ocular conjunctiva is lined with pavement epithelium, has no adenoid tissue, and is bound to the globe with loose episcleral tissue. The nerves rise from the trigeminal and the blood vessels from branches of tarsal, palpebral and anterior ciliaris.

HISTOLOGY.

Follicles consist of lymph cells imbedded in a mass of connective tissue. Fuchs found most cells and Villiard describes them as phagocytes.

BACTERIOLOGY.

The bacteriology is not understood. The micro-organism has not been iso-

lated. Micrococci are found in forms of diplococci and koch-weeks. At present it is believed that the virus with germ is conveyed by contact only. The virus remains virulent in moist surroundings.

SYMPTOMS.

The symptoms are very difficult to describe. There may not be any external symptoms at the outset, or even subjective symptoms, the disease being so slow and insidious in its development. The conjunctiva may be slightly injected and may resemble a subacute conjunctivitis, with a feeling of granules of sand beneath the lids, attended by burning pain, lachrymation, photophobia, itching of the lids and partial ptosis. Secretion, such as may be present, is watery in character. For a few weeks or longer the conjunctiva may feel hypertrophic and have a beefsteak or velvety appearance. At this stage no follicles are seen. The hypertrophy slightly disappears and in a short time roughness of the lids appears and follicles are seen. They first appear as a rule at the fornices and outer canthi, and best seen on the upper tarsus, though their formation usually begins on the lower lid. Corneal ulcers may now appear and also phlyctenulae keratitis. In this stage swelling and odema are sometimes present. In the mornings the edges of the lids are matted together. One eye may be trachomatous for a long time, while its fellow is normal, and even the lid of one may be affected, while its mate is free. It is practically *unilateral* for a long time. The whitish appearing specks and the slight hypertrophy are very constant in the incipient cases. It has been my good fortune to see trachyoma in this country in its incipient chronic and cicatricial stages. Lid margins are often inflamed and a viscid discharge is found at the inner canthi. The caruncles are very often swollen and may show follicles. The ocular conjunctiva may show a few follicles. Prickling

pain is felt. Pannus is very frequently found in this stage. Follicles will be seen in all sizes. This stage may be of long duration. Now the follicles break down and ulceration takes place and purulent discharge may be present. Pain is a symptom. Conjunctival thickening due to adenoid tissue begins. The ocular conjunctiva is congested, opaque and thickened. Crater-form ulcers are found at the site of the follicles. The follicles become confluent and are no longer visible. Now they appear as roundish or oval yellowish spots on the tense conjunctiva. Papillary swelling now diminishes and the appearance of a granulating wound is presented. Many follicles undergo transformation into fibrous tissue. Secretion is now purulent, and is intensely infectious. All stages may now be seen. The upper lid suffers more than the lower. I hold the belief that the purulent discharge at this stage is an acute conjunctivitis infection superadded to a chronic trachoma. Hypertrophy is observed most readily in the lower lid. The vessel outlines are destroyed and the membrane thrown into bulging folds. Upper lid hypertrophy is observed at the margins. The lids are dusky red in color and finely granular in appearance. When the cornea is involved, exacerbations and relapses are frequent. The normal conjunctiva is perfectly smooth, and pinkish in color. The markings of the blood vessels are distinctly visible. The duration of the above-mentioned symptoms may continue for months or even years, until cicatrization commences, when follicles disappear. As the conjunctiva is converted into fibrous tissue, the inflammatory stage dies down and lids may show a mulberry appearance. Cicatricial tissue follows, and we have a dry, dull and lusterless appearance. Contraction takes place, and palpebral fissure is narrowed and ectropion or entropion may result while the folds are obliterated and the ducts become

closed or more shallow. In 90 per cent. of cases the vision is impaired. Iritis and pannus generally develop at this stage and pthisis bulbi, glaucoma, ectopia and anterior staphyloma may develop. The patient complains of objective symptoms at this stage and it all depends how far the sequelae go in regard to impairment of vision. The majority of cases manage to get about in some way. Many suffer from blindness.

Statistics show the following percentages:

	1st stage	2nd	3rd
Narrowness of fissure.....	29	61	69
Dacro-cystitis	17	61	64
Phlyctenular keratitis, opacities, pannus, keratectasis, - ulcers, staphyloma	63	99	87
Impairment of vision.....	55	90	94
Xerosis.....	8 per cent.		

FOLLICLES.

The follicle appears first as a pinpoint in grayish or yellowish spots before follicular formation. It develops usually very slowly and grows in distinct rows in the region of retrotarsal folds, here and there, or grows in small groups in the folds. They may be of different sizes or stages lying beside one another. They may be hard or soft, large or small, superficial or deep, and are of sago-grain appearance, generally oval in shape. They resemble at one stage fleshy warts or villi of the intestines or may look like a string of pearls, with a few vessels on their anterior surface. Primary follicles may remain quiescent for a long time. The follicles at the conthi are noticed first, and especially on the upper tarsi. They are even found on the caruncles and on the ocular conjunctiva. The follicles change to fibrous tissue, break down and ulcerate. The follicular changes are: growth, fatty degeneration, athermatous degeneration and atrophy or cicatrization.

DIAGNOSIS.

When follicles are found on the upper lid plus hypertrophy and the fol-

licles deeply seated, there can be no mistake in the diagnosis. When follicles are superficial, positive diagnosis may be impossible. *The unilateral character* at the incipency for some time, is a very important point in diagnosing trachoma. Trachoma ends with scar formation. Other conjunctivital conditions clear up with medical treatment. Follicularis disappears without treatment. There is no scarring, no injury and no complications. The existence of trachoma in a district is important. Ptosis and pannus are important symptoms for a diagnosis. Don't mistake papillary projections for follicles. Catarrhal changes are acute and clear up under medical treatment. Diphtheritic gonococcic and other infections are differentiated by aid of microscope. Atropine irritation will clear up of its own accord. Follicular conjunctivitis is superficial and benign. Trachoma is deep and malignant and the follicles are associated with hypertrophy. We have what is called a progressive form of follicularis or trachoma. When no hypertrophy is present the case is suspicious. "A positive diagnosis cannot be made unless tarsus of upper lid is involved." (Wootton, New York City.)

PROGNOSIS.

The prognosis depends largely upon the stage, the complications, the sequelae, the method of treatment and the time the patient is under observation.

TREATMENT PROPHYLAXIS.

Prevention by precautionary measures is the all important point to bear in mind. All unsanitary conditions should be corrected. By educating the masses we can help the rising generation. "An ounce of prevention is worth a ton of cure." Diet and proper cooking of food must not be overlooked.

OPHTHALMOXYISIS.

Friction treatment of the lids was employed 3400 years ago. Fig leaves were very often used.

LOCAL APPLICATIONS.

Argyrol.
 Silver nitrate.
 Lead acetate.
 Tanno-glycerin.
 Boroglyceride.
 Copper sulphate.
 Corrosive sublimate.
 Iodine.

Copper sulphate occupies decidedly the first place and may cure cases in which the follicles are soft and superficial; "but even in these, operation is admitted to be the best method of procedure."—(Wootton.) This is true as regards time, prevention and prophylaxis. The patient suffers great pain and loss of time with long astringent treatment. Bichloride of mercury, 1 to 5000, does not possess value outside of the friction. It destroys a certain number of superficial follicles, but it offers no retardation to the progress of trachoma. Boric acid probably would do as well. Formalin possesses no value. I found in my experience that tannoglyceride and boroglyceride were next in value after copper sulphate. It is not advisable to use copper sulphate continually. The principle in using it is to stimulate not cauterize. It is used with greater success when the inflammatory stage dies down. It is called for, especially where hypertrophy is noted with the follicles. I cannot impress how important it is that the treatment to the lids after expression should be applied by a trained medical man, or if the doctor cannot oversee the cases, especially in a large dispensary practice or in boarding schools or other institutions where the disease is so prevalent, his assistant, if a nurse, should be properly instructed; and I would suggest the doctor examine and note condition of cases and have nurse pay particular attention to such notes when treating the cases. It is very obvious if the lower lid is not fully everted at the conjunc-tional junction

of the lid with the eyeball, follicles may be found which were not reached in the expression or new follicles which were forming at the time of the operation may not receive the treatment and also the papillary margin at the canthi be **often overlooked**. The modern ophthalmic treatment which is meeting with success, is operation. It is called "Expression" and is followed by **astrigent treatment**. The *astrigent treatment after operation is as necessary as the operation*. Copper sulphate holds first place. Prophylaxis and cutting short the treatment and preventing its spread is the important step here. Operative treatment is no longer an experiment. The treatment generally lasts three years. Opacities generally take eight years. You cannot set a definite time. Prognosis depends largely upon the stage, sequelae and complications. A return of trachoma is probably, reinfection. "In New York City out of 60,000 cases 75 per cent. were discharged as cured."—Wootton. This has shown the superiority of "expression" over non-operative steps. Whether the case is mild or severe the treatment, preferable under general anesthesia, is operative. I have used powdered cocaine with success in mild cases. Thus far I have had no ill effects from its use. I find it to be better than the solution of cocaine. The cornea must be guarded when it is applied to the lid, so as to avoid abrasions. Thus far I have had no untoward symptoms from the use of powdered cocaine, and all lids were fully anesthetized. The patients complained of very little annoyance. Had patients from six years to forty-five years of age. Thoroughness in expressing the follicles gives the success we should have. It is advisable to treat inflammatory symptoms before operation if they are marked. If the cornea is clear and active secretion is not too marked, I think operation is advisable at once. Waiting in trachoma

should not be thought of. I hesitated to use this method of procedure, until receiving the suggestion from Ancil Martin, who has had eighteen years of experience as an oculist in Phoenix, Arizona. This is only one of the many valued suggestions received from Dr. Martin. I did not operate, except in the cases with superficial ulcers, especially those associated with pannus. This is one of the many aids Dr. Martin has promptly and willingly given. I must also thank Drs. Simpson and Wilson of Phoenix for their co-operation and help. The injury and softness of the lids after expression alleviates the inflammatory condition. Cases under treatment for months, with astringents and other drugs, cleared up in a surprisingly short time after expression. Of course any marked abrasions of the cornea are not operated upon. Secretion is best controlled by silver nitrate, 2%, once daily. Protargol 6%, argyrol 10-15%, and zinc sulphate $\frac{1}{2}\%$ may also be used. The operator will not tear the conjunctiva if he is skillful. Pressure is necessary. The surface should feel smooth to the finger and appear thin and translucent. By this one can tell whether the follicles are removed. "This is an operation without gloves." Gentleness must be forgotten if you want success. Forceps in use are: Knapp's roller, Prince's, Noye's and Kuhnt's. Prince's are the best for the beginner, but Knapp's have proven more popular. With Noye's forceps the canthi can be reached without much trouble when the operator can handle them skillfully. Noye's forceps are the forceps to use in the fornices and I believe the more effective in some cases than the Knapp forcep. *The reaction* due to traumatism depends upon the degree of the case and the sequalee. Ice compresses are used for the swelling. Adhesions are broken up with a probe. Adhesions are wanting after the fifth day. Castor oil is used to prevent adhesions and boric

acid solution should be used frequently. Atropine and heat are used for corneal ulcers, and dionin for pain. When swelling is reduced, copper sulphate should be used, unless too astringent, until all hypertrophy of membrane has disappeared. Keratitis (pannus) may take years before improvement takes place. Atropine, hot compresses and canthoplasty of fissure if it is necessary, is the treatment. Ulcers as a rule are superficial at the beginning. Atropine, heat compresses and actual cautery is the treatment. Massage for pannus very often proves invaluable, and in the fornices, incisions may have to be practiced to reach the follicles. Scarring does not have many supporters. Judgment, patience and skill must be used in treating trachoma. However, with the operative treatment, the prognosis is much more favorable than many authors believe.

SUMMARY OF TREATMENT.

Prophylaxis and operative treatment, followed by medical treatment, is the modern progressive treatment of trachoma.

Prognosis: Depends on corneal involvement; and the method of treatment. Treatment in mild cases generally lasts two and a half years. The misery which trachoma often entails is enormous and blindness is often produced. The great many unfortunate sufferers who are often incapacitated from work are not noted by the authorities. Impairment of vision unfortunately is not looked upon as a serious condition. Our social welfare and national prosperity are crippled and education is set back.

I trust my paper will be clear and comprehensive and will awaken interest and action in the neglected eye condition, TRACHOMA.

REFERENCES.

Authorities: Kuhnt; Rust; Villiard; Balkman; Boldt; Posey; Schweintz; Hansell; Wootton; Herschberg; Alt; Cohn; Fuchs and Martin.

REPORT OF A CASE OF IRREDUCIBLE FRACTURE OF THE EXTERNAL CONDYLE OF THE HUMERUS AND OPERATION.*

BY FRANCIS E. SHINE, M.D., BISBEE, ARIZONA.

The interesting feature in the above case was the extensive displacement of the fragment, which was markedly rotated, so that the capitellum pointed upwards and backwards.

D. Cougan, age 9, admitted to the C. Q. Hospital, Jan. 24, '09, three days after accident. Case referred to Dr. Bacon, of Tombstone, who also assisted in the operation.

The injury was caused by a fall from a burro, the patient landing upon his flexed elbow.

Examination upon admission was unsatisfactory on account of fear, pain and swollen condition of the limb. Ecchymoses extensive, but the skin unbroken. Skiagraph showed a fracture at the elbow with the displacement, which we see. On Jan. 28 he was prepared for an examination under ether and operation if reduction was impossible. Physical examination at this time showed marked lateral mobility, **crepitus**, and the external epicondyle could not be felt. The tip of the olecranon and the internal epicondyle could be faintly distinguished. Reduction by manipulation proved impossible, so an open operation was begun.

An incision five inches in length was made on the posterior aspect of the arm and forearm to the outer side of the olecranon. A few fibers of the triceps were separated with forceps and the tendinous insertion to the olecranon, together with the periosteum were pushed to the inner side with periosteal elevator. The fracture within the joint was then easily palpated through the ligament. The posterior ligament was

then incised. This, with retraction, allowed the finger to be introduced and the external condyle was felt, as well as seen, to be displaced in an upward and outward position; the articular surface of the radial head being completely rotated upward. The head of the radius deviated slightly outwards but was seen to be attached by its ligaments to the fragment (Speculate as to whether or not reduction was made impossible on this account).

The fragment was placed in its normal anatomical position and as it showed no tendency towards displacement, it was left there without sutures. The capsule was closed with cat-gut sutures—the tendinous insertion of the triceps was replaced over the olecranon—and the skin wound closed. A rubber-tissue drain was introduced beneath the skin, and was removed on the 4th day. The forearm was placed in a flexed position and held in this position by an anterior and posterior plaster of Paris splint. The wound healed by primary union.

The day following the operation, the patient remarked that he had sensation and felt life in his fingers, which had hitherto been numb.

The patient left the Hospital on Feb. 4th and about ten days later he returned from Tombstone, when the second skiagraph was taken.

A physical examination made at this time showed a normal relationship of the three bony points. Flexion and extension were good and pronation and supination were perfect.

*Read before the Arizona Medical Association, May 20, 1909.

ABSCESS OF THE LIVER OF UNUSUAL ORIGIN.

BY W. B. POWER, M.D., REDLANDS, CALIFORNIA.

A. B., age 56, cook; first seen July 29. Family history negative. Had had a fever thirty years ago which lasted two weeks. Had regularly drank whisky. History otherwise negative.

Three weeks ago she became overheated while ironing clothes, and nausea and vomiting, with a chill accompanied by fever and sweating, followed. There was pain in the abdomen and chest, cough accompanied by pain, the bowels constipated, the appetite poor.

Physical examination: Patient anaemic and poorly nourished. Respiration 29 to the minute, pulse 115 and small. Tongue dry and red. Patient stupid and apathetic.

Breathing was bronchial in character over the bases of both lungs. Dullness at the base of the right lung behind. No cardiac murmurs nor enlargement of the heart. The liver could be felt about an inch below the ribs. There was no tenderness on pressure, no abdominal distension, no tumor in the region of the gall bladder, or the appendix. The liver seemed uniformly enlarged, the spleen normal. There was not the slightest sign of jaundice.

The bowels were constipated. The urine was clear amber, acid, 1.013, albumin 4 per cent., no sugar. Pus cells and epithelia were found, but no casts. The patient took her food well and slept most of the time. She never complained of pain and remained sleepy and apathetic. The temperature ranged from 100 to 102 for five days, the pulse from 120 to 90. Temperature then slowly fell to 99 for a few days, rose again to 102, and varied for a few days from 98 to 102. Then for ten days it varied from 98 to 100, rose to 103, remained high for five days, dropped to

97, and until her death six days later varied between 97 and 102, never with any sudden rise or fall or chill. Pulse ranged between 90 and 125. No abdominal symptoms or physical signs developed. The dullness of the right lung continued. The albuminuria increased to about 10 per cent. by bulk. There was no leucocytosis. Widal's reaction and Ehrlich's reaction both absent. There was marked anaemia. The patient gradually became more sleepy and apathetic, and died twenty-three days after first visit. The diagnosis was chronic nephritis and cirrhosis of the liver, hypostatic pneumonia, and chronic myocarditis.

Autopsy August 24th. Body emaciated, extensive post-mortem discolorations over abdomen, and over the posterior surface of the body. Patches of yellowish pigmentation on face and neck. Both pupils contracted to a pin point. Heart was small, surrounded by pale fat. Pericardium negative. Heart muscle soft and light brown in color. Valves on left side slightly thickened. A few patches of thickening on the mural endocardium. Arch of the aorta somewhat dilated and atheromatous. Coronary arteries showed endarteritis of moderate degree.

The bronchi were in places dilated, and showed an abundant purulent secretion. The lungs were emphysematous, the posterior portions congested, heavy and airless. The apices on both sides presented scars of healed tubercles. Three isolated calcareous nodules in left lower lobe. Pleura over right base heavily coated with fibrin.

The lower surface of the liver was attached to the subjacent tissues by adhesions, on separating which a large amount of greenish yellow pus gushed from the lower surface of the liver.

On removal, the right lobe of the liver was riddled with communicating cavities of large size. These cavities were lined with dense walls of fibrous connective tissue, covered with granulations and pus clots. The lower wall of the abscess cavity was formed by the dense peritoneal adhesions already mentioned, which glued the upper border of the stomach to the lower surface of the liver. On close examination of the abscess cavity a pin encased in calcareous matter was dislodged from the wall of the main cavity. The pin was of the ordinary variety, and with its calcareous incrustation measured about half a centimetre in diameter. The liver capsule was thickened and scarred. The left lobe was of a light mahogany color, and showed increase of the circum-vascular connective tissue. The liver weighed two pounds ten ounces after the pus cavities had been flushed out. The pus contained micrococci and bacilli, but no cultures were made.

The gall bladder was contracted and contained a small amount of mucous. The common and hepatic ducts were small and empty. The spleen was small, the capsule thickened. The stomach was atrophied as regarded the mucous membrane and generally contracted. Ten cm. from the oesophageal entrance and two cm. anterior to the mesenteric attachment of the lesser curvature the mucous membrane presented an old circular scar $1\frac{1}{2}$ cm. in diameter. This area was surrounded by a ring of indurated tissue, but no

evidence of recent inflammation was present. The base of the scar was very thin, and it was evident that at one time perforation of all the coats of the stomach had been present. The process was undoubtedly an old one, probably of months or years standing. This ulceration was situated directly beneath the center of that portion of the liver containing the abscess cavity. There were no lesions of the peritoneum. The intestines showed no lesions. The pancreas was small and firm. The adrenals were small and fatty. The kidneys, slightly enlarged, showed a chronic diffuse nephritis, the capsule was thickened, the connective tissue around the blood vessels increased, the right renal artery was plugged by an embolus. The pelvic organs were normal, showing only senile change.

The dura mater was thickened, the pia mater very opaque over the parietal lobes. The brain substance was firm and normal, there were no areas of softening or plaques. The spinal cord was not examined. The vessels at the base of the brain showed somewhat thickened walls.

The chief points of interest in this case, explaining perhaps the failure to diagnose the presence of the abscess, were the latent character and long duration of the trouble, the absence of physical signs or symptoms referable to the liver, the presence of evident lesions of kidney and lung, the absence of leucocytosis, and the non-appearance of jaundice.

AN EASY METHOD OF DISCOVERING REFRACTIVE ERRORS BY THE GENERAL PRACTITIONER. *

BY WILLIAM H. DUDLEY, M.D., LOS ANGELES, CALIFORNIA.

Among the frequent calls upon the general practitioner are those for the relief of pain and other disturbances, the result of the various ocular re-

flexes, particularly headache, and eye ache, long since recognized as often dependent upon some error of refraction, or muscle imbalance. Again we often

*Read before the Southern California Medical Society, December, 1908.

find patients complaining of vertigo, which is not dependent upon stomach disorder, labyrinthine inflammation, or cerebral or cerebellar disease which may be due to ocular muscle imbalance or beginning muscle paresis, which if recognized early, may be relieved without prolonged medication. It is also to the family physician that the patient takes his child who comes home from school, not only complaining of pain in the head and eyes, but often difficulty in seeing the blackboard exercises, which handicap him in his studies; and the question arises whether this is from some disease of the fundus of the eyes, some digestive disorder, or from some error of refraction. Again there are many cases of high degree of hyperopia, astigmatism, or hyperopia and astigmatism, which in the child may be mistaken for some form of myopia, if only the actions of the child are taken into account; viz, the holding of a book, or other near work in hand, near the eyes. As in myopia, his vision for distance is bad, and when this fact is considered, and the adopting of an especially near point for his reading, it is presumptive evidence of myopia, when as a matter of fact the reverse is the case.

The reason the child with a high degree of some form of hyperopia holds the book near his eyes, is not because he gets clearer vision, but because by the exercise of the high degree of accommodation which he possesses, he gets a relatively large image; though still indistinct, he is able to get on better with his work. As he gets older he cannot do this; for now his accommodation is weaker, and the image is blurred at any point; in fact so much so, that he is compelled to give up the struggle and resort to glasses. Although a young child, if robust, can often manage to get on with as much as four or five diopters of hyperopia, or hyperopia and astigmatism, yet he does it to a great disadvantage to his

later years; for now his retina never having received distinct images, has lost its ability to appreciate them when received, and transmit them to the brain; hence it is no uncommon observation to meet a patient who has carried three or four diopters of hyperopia or astigmatism, or both till his thirtieth year, to find, when his accurate correction is adjusted, that his best vision is no more than 20-70 for distance, nor better than No. 4 Jager's test types for near.

It is more often that the family physician is first consulted as to the cause of the child's indifferent vision, and it is he who can put the parent on the right track, and enable the child to grow up with accurate vision, both for far and near. It is for the purpose of demonstrating a method of making a qualitative diagnosis of these conditions that this short paper is written. The necessary instruments for this demonstration consists in a small piece of cobalt glass, for sale by most all wholesale opticians, and a candle; and the necessary information to enable one to use them depends upon the remembrance of one fact; viz, that when cobalt peroxide to the amount of about 20 per cent. is mixed with common glass, it produces a color, which to diffused light is a bright blue, with a uniform tint, but when presented to a small intense light, like a candle flame, six to ten feet from the eye with some refractive error, a dispersion of the colors red and blue, of which the glass is made, results. The probable explanation of this dispersion of the colors of this dichromatic glass is as follows: We note that in the dispersion of colors by the prism, for some reason, the red suffers the least bending, and we note that the same principle holds good here; whether on account of the much longer wavelength, the red pursues a much straighter course or otherwise, I do not know; but the above explanation appears at least reasonable. Now

the blue rays entering the eyes, and having a greater refrangibility than the red, are focussed at a nearer point than the red, and find their focal point in the vicinity of the plane of the macula, of a somewhat short or hyperopic eye, while the red rays, being less refracted, would find their focus at a point behind the plane of the macula, and are therefore thrown upon the retina in a more or less diffused fringe around the focal point of the blue rays. Of course in the long or myopic eye, these conditions would naturally be reversed, and as a matter of fact, experience proves this to be true.

In the application of these facts, we find that when a cobalt glass is placed before a hyperopic eye (an eye shorter than a normal eye) the other eye being closed, and the patient is directed to look at a candle flame from six to ten feet distant, he will notice that the center of the flame is blue, and the periphery red. Now in the appearance of the flame, much will depend upon the amount of hyperopia present. If he has no more than three or four diopters present (of his error) the shape of the flame will be preserved and the colors arranged as above; but should the hyperopia amount to five diopters or more, the flame will lose its outline, and will become more or less spread out, and much better results will be obtained by placing the candle within two or three feet of the observer; on the contrary, the myopic patient will see the flame with a bright red center, and a blue fringe or border. In simple hyperopic astigmatism, the flame will be drawn out more or less (depending upon the degree of astigmatism) in a line at right angles to the axis of the astigmatism, the body of the light being blue, and having a red bar running across it. In compound hyperopic astigmatism, the flame will be found to be drawn out at right angles to the axis, of the astigmatism, the center of

which will be blue, while the edges of the drawn-out flame will be fringed with red. In making these observations, it will be better to hold the glass quite close to the eye; and in all cases where the arrangement of colors is not readily perceived, the observations will be more satisfactory if the light is brought nearer to the observer. In compound myopic astigmatism, the center of the flame will always be red, the flame will be drawn out at right angles to the axis of the astigmatism, and the whole flame will be surrounded by a fringe of blue. In mixed astigmatism, where a part of the astigmatism is hyperopic, and a part myopic, there will be a drawing out of the flame in two directions, at right angles to each other. In this case, the preponderance of the astigmatism will determine whether the greater portion of the flame will be blue or red. If the myopia is in excess, the heavier bar in this cross will be red with a bunch of blue on either side connected across the red bar by a faint line of blue; while if the hyperopic astigmatism be in excess the reverse of these conditions will be observed. After numerous experiments with this form of ametropia, I am of the opinion that it is the most difficult one to make a diagnosis of, unless you have a patient with fairly good powers of observation, and capable of describing accurately what he sees.

The use of the cobalt glass in the diagnosis of various forms of ametropia may be briefly summarized as follows:

Hyperopia.—Blue center surrounded by red.

Hyperopic Astigmatism, Simple.—Light drawn out opposite to axis of astigmatism, center blue, ends of drawn-out light red.

Hyperopic Astigmatism, Compound.—Center blue, flame drawn out opposite to axis of the astigmatism, with fringe of red all around.

Myopia.—Center of flame red with blue border.

Myopic Astigmatism, Simple.—Flame drawn out opposite to axis of astigmatism, center red, ends of drawn-out flame blue.

Myopic Astigmatism, Compound.—Flame drawn out opposite to axis of astigmatism, center red, with fringe of blue all around.

Mixed Astigmatism.—Flame drawn out in two directions at right angles to each other with bar of red or blue crossing each other.

As stated above, vertigo, with or without nausea and vomiting, is another disturbance which, as previously stated, is not always dependent upon stomach, ear or brain trouble primarily, but upon lack of balance of the extrinsic ocular muscles. This may be either functional or organic; but in either case, when recognized, it is capable of assisting materially in the diagnosis. Some patients who have or have not some form of refractive error are troubled with either pain in the head, or eyes, or inability to use the eyes, the principal cause of which is lack of muscle balance of the eyes, can easily be recognized by the cobalt glass; in fact it is one of the best methods in use for this purpose. In examining the eyes for muscle imbalance, we should sit the patient facing a lighted candle fifteen or twenty feet distant and place the glass before one eye, with both eyes regarding the light; any form of muscle imbalance will be shown when the observer states that he sees two lights—the colored and the uncolored—with more or less distance between them; this always denotes lack of muscle balance of more or less degree. Should a form of paresis be present, the turning of the head up, down, right and left, the eyes still being fixed on the light, will show a widely varying distance between the lights. This always means a paresis or paralysis of some ocular muscle.

Should you care to take the trouble to decide which particular muscle is at fault, you will simply recall the actions of the various ocular muscles, and the particular form of double image associated with their paresis, and the diagnosis is complete. The cobalt glass is not intended to be used as a method for correcting errors of refraction; and although it is possible to do this without the aid of a test card, it is not the best method for this purpose; but as an easy method of discovering ametropia, and its form, as well as the diagnosis of muscle imbalances, and beginning paresis, is quick and can be relied upon in the vast majority of cases, by simply observing the foregoing rules, without special knowledge of refraction.

WARFARE ON MOSQUITOES.

A novel mode of warfare against the mosquito, but one that is proving highly successful, is being carried on in the city of Tampa, Fla. There are many rainwater tanks and cisterns throughout the city for supplying water for lavatory and various other purposes, and these are favorite breeding places for mosquitoes. The warfare against the annoying pest consists in stocking these reservoirs with small fish to feed on the mosquito larvæ. This method has been tried in one place and another in Florida, and has proved successful in every sense. The fish eat the larvæ greedily, keeping the water clear of them, and live for years, even in tanks that are covered, and their living place one of darkness.—*Pacific Medical Journal, San Francisco.*

Cases of malaria failing to respond to quinine should be given methylene blue, followed by quinine. It is asserted that methylene blue diminishes motility in many bacteria and renders the plasmodium of malaria more receptive to the quinine.—*Gaillard's Medicine.*

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EDITORIAL

DEATH OF J. H. DAVISSON.

Dr. J. H. Davisson's death took from our midst one of the most delightful, ingenuous and unselfish members of the medical profession of Los Angeles.

Dr. John Harvey Davisson, aged 60, died at his home, 920 Westlake Ave., at 7 p.m. Monday, November first. Although the doctor had not been well for several years, yet his death came suddenly and was a shock to his many friends. He was a Virginian by birth and graduated from the medical department of the University of Maryland, class of 1876. He had been a resident of Los Angeles for 23 years. In 1893 he was chosen to represent the medical profession of the State of California in the Congress of Physicians at the World's Columbian Exposition in Chicago.

In 1896 Dr. Davisson was selected to represent California in the Pan-

American Congress at Mexico City. Besides being president of the State Board of Health for several years, he was a member of the Los Angeles County Medical Society, the State Medical Society, Southern California Medical Society, American Medical Association, and was one of the organizers of the California Hospital.

He was prominent as a member of the Jonathan Club, California Club, and the Sunset Club. He belonged to the Southern California Chapter of Masonry, was a member of Signet Chapter, No. 57, R. and A. M.; Los Angeles Commandery, No. 9, Knights Templar, and a Shriner.

This record of positions filled is as nothing compared with his daily record among his patients and his professional friends. With the former he was the personification of gentleness, kindness and skill; while with his pro-

fessional brethren his open hearted, genial nature shone, unclouded by a single fleck of envy or jealousy. His home life was ideal. The doctor, his wife and his son lived for each other and together formed a happy household. The funeral was conducted by the Knights Templar and was largely attended, many members of the profession being present.

TRACHOMA AMONG THE INDIANS.

For a number of years the physicians of the Southwest, who have been devoting their time to the study and treatment of diseases of the eye, have recognized that trachoma was and is very widespread among the Indians of this section. Of those who have been quietly doing good work in this disease among our Indians, always at the expense of considerable time and energy, the name of Ancil Martin of Phoenix stands out very prominently. For many years Dr. Martin has been giving freely of his valuable time to the treatment of such Indians as were fortunate enough to consult him about this or other diseases of the eye. As these Indians are nomadic in their habits the work was of necessity desultory and in most cases quite unsatisfactory. The Indian would pass on to new haunts before the treatment of so chronic a disease had been more than properly begun.

It is very gratifying, therefore, to know that the United States Government has begun systematic efforts to treat and eradicate this disease among the Indians of the Southwest; and

that the clinic at the Indian School at Phoenix, which is being made the headquarters of this movement, is under the direct charge of Dr. Martin.

Through the persistent efforts of Dr. Daniel W. White, resident physician of the United States Indian School at Phoenix (whose article on Trachoma appears in this issue of the *PRACTITIONER*), the United States Government has appropriated twelve thousand dollars (\$12,000) for the building of a special hospital in connection with this school, for the treatment of trachoma. A special corps of trained nurses is to be provided and every effort made to systematically treat this disease.

Already, Dr. Martin spends several hours each day at the school treating the eyes of the pupils and superintending rigid regulations to prevent its spread. At the present time two full-grown Indian girls from Oklahoma and several children from California, Texas and New Mexico, to say nothing of large numbers from Arizona, are being treated in the temporary hospital of the school.

An interesting feature of this work is the fact that old Indians and squaws nearly or quite blind from trachoma are voluntarily coming from reservations very many miles distant and asking for and receiving treatment at the school. The sight of quite a large proportion of these is being improved to a very considerable extent by treatment. Even the young Indian children are much interested in the work and during a clinic one will hear the little fellows who are waiting to have their eyes examined ask eagerly, "Trachoma? Trachoma?" of each fellow-

patient as he leaves the examining chair.

Drs. Martin and White have found fully seventy-five per cent of the Indian children of this section affected with trachoma. As quite a number of Indian boys and girls are now being employed as house-servants in Arizona and New Mexico there is a real danger of the disease being conveyed to white children and the subject of the treatment and prevention of trachoma should appeal strongly to the physicians of both Territories.

J. W. F.

IN MEMORY OF DR. JAMES P. BOOTH.

A few weeks ago the profession of the Pacific Southwest learned with sorrow of the death of one of its most beloved members. In the death of Dr. James P. Booth we have suffered the loss of one of our most notable men; a man of the highest professional instincts, a true friend and a brilliant man of many parts.

Seldom do we see, as we did in him, so many gifts of God, those qualities and powers which men so much admire and desire, concentrated in one individual.

In Dr. Booth's lifetime, we see him as a student, soldier physician, writer, newspaper man, editor, legislator, army surgeon, sheriff, actor, orator and teacher. In him were to be found a strong, fervent, religious spirit, an unusual gift of oratory, a kindly and sympathetic heart, a fluent and able writer, the possessor of a marked dramatic instinct, a keen and accomplished

physician, a most magnetic personality and a friendship always true.

The medical profession has lost one of its most loyal members, conceded by them to have had no peer among them as an orator and few as a writer; his presence at any gathering was always received with pleasure and with joy.

Yet, withal these wondrous talents, he was a man strangely quiet, modest and retiring, exceedingly sensitive, of a finely wrought nature, he always shrank from publicity and it required the constant push of his friends to bring him out. And so, while numbering his friends by thousands, but few enjoyed his close confidence and fully understood and appreciated the man. No man ever lived in the desert country who was more widely known, nor more beloved than our departed friend, and no man was more welcome, for those that knew him, loved him for his many, many kind and noble qualities of mind and heart.

Dr. Booth was born on May 17th, 1847, in Eufala, Alabama. His father, John P. Booth, was United States Circuit Judge of Alabama. His boyhood was spent on the plantation and in travel. He received his early education in Alabama, and later matriculated at Georgetown College, Washington, D. C. In 1861, at the commencement of the Civil War, he went home and completed his college course at Spring Hill College, near Mobile. He, with nine other fellow students, enlisted in the confederate army and were assigned to "Tobin's Battery of Flying Artillery." At the close of the war, he moved to Texas and engaged in newspaper work at Galveston. In 1868 he

began the study of medicine with Dr. Grenville Dowell, an eminent surgeon and medical authority of that state. On the completion of his studies he began active practice in Galveston and was soon afterwards married. In a few years he moved to Bear Creek, near Fort Worth, where he resumed practice. His writings attracted the attention of newspaper men of Fort Worth and he was shortly offered the position of city editor of the Fort Worth *Gazette*. He dropped practice and entered this new field.

Attracted to New Mexico in the early eighties, he settled in Las Cruces, where he resumed practice. He also became interested in politics, did some newspaper work and was appointed assistant surgeon to the First New Mexico cavalry, in which capacity he went with General Lawton on the hunt for outlaw Indians and was with the party that finally tracked old Geronimo to his lair. He served two terms in the Legislature of New Mexico and established the Mesilla County *Democrat*.

The call of the West came to him and about 22 years ago he came to Needles, Cal., having been appointed local surgeon of the Atlantic & Pacific. His professional work carried him many miles into the back desert country, and his practice was a most difficult one. As the town grew, so the opportunities for the doctor's natural inclination developed.

Soon his dramatic instinct asserted itself and he built an opera house, to which he booked what attractions he could, which were quite a few, as Needles broke a long jump. He or-

ganized the Booth Stock Co. and presented many dramas at his little opera house, he usually appearing in the principal part.

His literary activity found an outlet in the shape of a weekly paper which he called "Our Bazoo," which title was later changed to "Booth's Bazoo," and still later to the "Needles Eye."

This paper was the apple of his eye and was filled with the best that he had. Its sayings were quoted from Maine to California.

He organized and kept alive the Needles brass band. Being possessed of a fine voice he was a member of the choir of the Needles Catholic Church and it is related that during the absence of the resident priest on his mission, the Doctor would conduct the burial services over the remains of the poor unfortunate who had died. Being possessed of a legal mind and there being no lawyer living in Needles, he was called upon on several occasions to defend his fellow townspeople, and he usually won his case. If there was any public gathering, he was called upon to preside; if a speech of importance was needed, he made it. He was foremost in perfecting arrangements for all public celebrations; was always actively interested in school affairs and under his guidance a fine High School was built. In short, if the people of Needles wanted anything done properly, they knew that Dr. Booth could do it.

He always took an active interest in politics and in 1892 was elected Sheriff of San Bernardino County. He was detailed by the State Board of Health to take charge of the smallpox

quarantine at Randsburg and at Bakersfield. He did efficient and noble work in both places, and especially in Randsburg, where he not only attended the sufferers, but nursed and comforted them and assisted in the burial of those who succumbed.

While a resident of San Bernardino County he served as President of the County Medical Society and went to the State Society as a delegate.

About seven years ago on account of his advancing years and his inability to withstand the great heat of the desert, he moved to Los Angeles. He soon built up a very comfortable practice. Soon after his coming it was my privilege to first know him and to be associated with him in practice. It seemed to me that every desert man and woman who came anywhere near Los Angeles, came in to see the old doctor, from whom they always received a hearty welcome and a cheery smile.

About four years ago he was appointed editor of the Los Angeles Medical Journal, which work was a source of great pleasure to him. He strived hard to make it a success, but something more than writing was needed for it to live, and after a year of endeavor, it died.

In 1906 he carried this city by 2000 over his Republican opponent, in the race for Coroner. For the four years preceding his death he occupied the Chair of State Medicine and Hygiene in the College of Physicians of Los Angeles.

Dr. Booth was always in demand as a public speaker; his easy flow of language, his graceful style, and abso-

lute command of the Queen's English, together with his pleasant, well modulated voice, having a delightful Southern accent, always gave great pleasure to his auditors.

It seemed to me that writing was his greatest delight. I have often seen him writing long articles and his thoughts came as fast as pen could carry. Seldom, if ever, had he need to stop to think for the next thought or correct or change his copy on second reading. The old doctor was full of reminiscences and it was a rare pleasure to listen to his many varied and at times exciting experiences.

Three years ago he suffered the loss of his wife, who had been his helpmate for thirty-five years. This was a severe blow and seemed to mark the beginning of his decline.

For about eighteen months preceding his death, he had not been in active practice and during this time used every means at his command to shake off his insidious destroyer, but to no avail; he died peacefully in the arms of his faithful daughter and with the consolation of his church. He was taken to Needles and laid side by side with his faithful wife, a wish that he had expressed during life.

The day of his burial was one of great sorrow in Needles. The business houses and schools were closed and the population, at both church and grave, gave silent testimony to the great love that they bore to this great, true and noble physician.

True to his birth and education, he was always a type of the true gentleman—brave, courteous and kind. Under no circumstances, no matter what the

aggravation, did I ever know of him being otherwise. His heart was too big for his own good. His charity knew no bounds. No sufferer or one in need ever failed of his assistance. Born well, endowed with many gifts and talents, he lead a useful and profitable life—to others, but not to himself. His

legacy to his children, to his friends and to his country is not counted in dollars, but in the memory of a good and noble friend, physician, citizen and patriot, whose name will live in the history of this great Southwest as one of her notable men.

W. R. M.

EDITORIAL NOTES

Dr. W. R. Manning has located in Fillmore, Ventura county.

Dr. J. B. Cook of Los Angeles has returned from a northern trip.

Dr. Charles E. Johnston, formerly of Visalia, has located in Garvanza.

Dr. Sarah Maloy, who has been East, is again at her home in Riverside

Dr. Wilbur P. Sipe of Flagstaff is doing post-graduate work in New York City.

Dr. H. Owen Eversole has returned to Los Angeles after a year's study abroad.

Dr. I. M. Zimmerman, formerly of Tucson, is now practicing at Courtland, Arizona.

Dr. F. E. Shine of Bisbee, Arizona, has been spending a few days in Los Angeles.

Dr. Richter of Calexico, Imperial County, has returned from an Eastern trip.

Dr. H. M. Evans of Valparaiso, Ind., has been visiting friends in Southern California.

Dr. Robert McReynolds of Los Angeles has been spending a few weeks in Philadelphia.

Dr. F. M. Peironet has been appointed assistant health-officer for the borough of Wilmington, city of Los Angeles.

Dr. G. W. Lasher and Dr. W. F. Perry have returned from a three weeks' quail hunt.

Dr. H. L. Coffman of Santa Monica has established a Sanatorium at Palm Springs, Riverside county.

Dr. J. M. Radebaugh, one of Pasadena's founders, recently returned from a trip to Eastern cities.

Dr. J. C. Hearne of San Diego is to build an Italian villa in the more or less sacred precincts of Point Loma.

Dr. Charles Sands of Silver City, New Mexico, has returned home with his bride, née Nash of Bath, Ontario.

Dr. W. G. Leroy, age 71, formerly of Chicago, died in Sierra Madre, Los Angeles county, Monday, October 4th.

The citizens of Monrovia gave a banquet in honor of Dr. and Mrs. F. M. Pottenger on their return from Europe.

Dr. Edward Grove of San Diego, who was recently killed in an automobile accident, left an estate valued at \$30,000.

Dr. George Dock, as Professor of Medicine in Tulane University, now has consultation offices at 124 Baronne street, New Orleans.

Mr. and Mrs. Joseph W. Sefton of San Diego have presented to that city a Children's Hospital constructed on modern lines and thoroughly equipped.

Dr. C. E. Pearson, formerly of McCabe, has accepted the position of surgeon to the Clara Consolidated Gold and Copper Mining Co. at Bouse, Ariz.

Dr. Francis H. Meade, president of the San Diego Board of Health, delivered a lecture on "The Mosquito" to the pupils of the High School of that city.

Dr. Emil F. Tholen has returned to Los Angeles with his bride from Fort Madison, Iowa. The doctor is located in his new home on Central avenue, Tropic.

Dr. C. I. Hughes, a graduate of the University of Louisville, College of Medicine, and a son of Dr. H. A. Hughes of Phoenix has opened offices at Camp Verde, Arizona.

Dr. Riley Shrum, formerly of Bedford, Indiana, has taken charge of the McCabe, Arizona, Hospital. Dr. Shrum has also taken the offices formerly occupied by Dr. Pearson at that place.

Dr. James Bird Cutter, formerly of Albuquerque, is now in charge of the Angelus Hospital, Los Angeles. Dr. Cutter graduated from the medical department of the University of Oregon, class of 1893.

The Southern California Homeopathic Society closed its nineteenth annual convention with a banquet to their wives at the Westminster Hotel, Los Angeles. Dr. E. C. Buell made an ideal toastmaster.

Dr. Alvin G. Lueschen, formerly of Columbus, Nebraska, has located in Los Angeles, with offices in the Broadway Central Building, 424 South Broadway. Dr. Lueschen restricts his practice to the eye, ear, nose and throat.

Dr. A. L. Tilton, who spent the last year in the medical department of the U. S. Indian service in Northern New Mexico, has returned to Kingman, Arizona, much improved in health, and has resumed private practice there.

Dr. Albert W. Moore, of Los Angeles, is now located in the Lissner Bldg.

Dr. A. P. Williamson, who has been superintendent of the State Hospital for the Insane at Patton and of Las Encinos Sanatorium at Pasadena, has now located in Santa Monica.

Dr. Charles L. Lindley of Lakewood, New Jersey, was in Los Angeles for a few days. He came with J. Hays Hammond and left with President Taft's party.

Clemenceau, the recent prime minister of the French republic, was formerly a practicing physician in New York City, while Julian Simyan, Secretary of State for the Postal department, was formerly the physician in charge of a lunatic asylum.

Miss Linda Richards, the first American graduate trained nurse, has just retired after fifty years of practice. She graduated from the oldest hospital training school for nurses in the United States, The New England Hospital for Women and Children.

A physician in one of the substantial smaller cities of Southern California will move to Los Angeles about January 1st. He would sell his office furniture and introduce a good man. The investment would represent about \$500. If interested address this office.

Dr. Roscoe Olmstead, school physician of Pasadena, has prepared two health pamphlets which are being distributed at the various schools of the city. They are on the effects of eye strain and the effects of decayed teeth and are the first of a series of pamphlets which will be issued this year for the benefit of the students.

At the recent annual meeting of the State Medical Society at Reno, Nevada, the following officers were elected: President, George McKenzie, Reno; first vice-president, F. M. Nesmith, Goldfield; second vice-president, W. H. Hood, Reno, and secretary and treasurer, S. K. Morrison, Reno.

A farmer in New Jersey has a phonograph play beautiful operatic airs in his dairy while milking is in progress. He finds that by doing this the cows give much more milk than when there is no music. This thought might be of use to nursing mothers who are not furnishing enough milk for their offspring.

The Los Angeles County Medical Association recently elected the following new members: Dr. Chas. E. Atkinson, 700 E. 25th St.; Dr. C. C. Ledyard; Dr. McBride's Sanitarium, Pasadena; Dr. Wm. Barnhart, 615 Euclid Ave.; and Dr. H. E. Southworth, by transfer from the San Joaquin County Medical Society.

There are 6,000 Indians in the state of New York. Although tuberculosis is prevalent, their death rate is about the same as among the white population.

Dr. Nathaniel Greene Turney, aged 77, died of apoplexy near Escondido, San Diego county, Tuesday, October 5th. Dr. Turney located in the Sacramento Valley fifty-four years ago, where he practiced medicine for many years.

An effort is being made to establish a public Territorial Medical Library in Arizona. The movement is under the direction of Dr. Francis H. Redewill of Phoenix, the Secretary of the Maricopa County Medical Society. The Doctor will submit details of the plan to the Arizona Medical Association at its next annual meeting when definite official action will be taken.

Forty per cent. of the soldiers in the British army in India are total abstainers. At the Twelfth International Congress on Alcoholism held in London, July 18-24, 1909, the consensus of opinion was that alcohol in any form is but seldom of distinct value in the treatment of disease. Dr. Reid Hunt represented the Public Health and Marine Hospital Service.

The city of Nuremberg, with a population of 320,000 employs 15 school physicians, who have the medical supervision of about 42,000 school children, distributed throughout the city, in about 70 school buildings, and subdivided into about 835 classes. According to the medical report for the 1906-7 school year, each school physician had under his supervision an average of 55 classes with 2740 pupils.

"Bacon On the Ear" is the title of a work recently published by a Philadelphia house. It is remarkable how many of the old remedies are again becoming popular. The direct application of a hot piece of bacon was formerly considered the most efficient cure of earache. This reminds us of the ancient incident where a young physician was very foolishly incensed at being asked if he had read "Hare on the Stomach."

The Secretary of the Arizona Association for the Study and Prevention of Tuberculosis spent several days in Kingman and in Flagstaff during October in the interests of the work of this association. Public meetings were held in both these towns and county societies were organized in affiliation with the Arizona association. Considerable interest and enthusiasm were manifested and it is anticipated that active work will be begun at once under the direction of the local physicians.

Worth Hale, Pharmacologist of the Public Health and Marine Hospital Service, reports a series of experiments showing the influence of certain drugs upon the toxicity of acetanilide and antipyrine. These experiments indicate that caffeine increases the danger of acetanilide mixtures, as do also the opium alkaloids. On the other hand, in these experiments upon the lower animals sodium bicarbonate appears to be a fairly good antagonist and would possibly be of use in acetanilide poisoning in man.

Referring to the notice in the September Southern California Practitioner of the appointment of Dr. John A. Reily of Missouri as first assistant in the Southern California Hospital for the Insane at Patton, a well known and absolutely reliable Los Angeles physician writes that he knows Dr. Reily to be especially equipped for that work. We did not question Dr. Reily's fitness. We simply questioned the inference that out of the 6,000 licensed physicians in California there was not one available equally as well qualified.

Dr. Thomas Norton died at his home in San Luis Obispo, Saturday, October 30. Dr. Norton was born in Athlone, Ireland, sixty-three years ago. He received his early education in the neighboring schools of his native county, and afterwards in the Queen's College, Galway. He then left Ireland and completed his studies in Michigan Uni-

versity, where he was graduated with the highest distinction. He afterward took his medical degree in the Long Island College Hospital, graduating in the class of 1878. He had been practicing in San Luis Obispo for thirty years.

A prominent Los Angeles surgeon was recently preparing a paper on a surgical topic and he wrote to a New York "bureau" to get him data on the subject. In a reasonable length of time a great mass of matter of more or less pertinence came, together with a bill for \$410. After quite a little correspondence the matter was settled for \$150. The doctor could have secured all the data he wanted by dropping a line to the Librarian of the Barlow Medical Library, 738 Buena Vista St., Los Angeles, and saved his money. Learn to use this valuable library. The librarian is ever ready.

OF GENERAL INTEREST

ORIGINAL PAPERS BY THE EDITOR.

The editor of the CALIFORNIA PRACTITIONER had an occasion a few days ago to collect the titles of articles—other than editorials and book reviews—that he had written during the last 25 years. Believing some of our faithful readers might be interested we append the list.

MEDICINE & SURGERY.

Midwifery Without Ergot, SOUTHERN CALIFORNIA PRACTITIONER, May, 1888.

The Physician Ever a Student, SOUTHERN CALIFORNIA PRACTITIONER, November, 1888.

Hydramnion—Report of Two Cases, SOUTHERN CALIFORNIA PRACTITIONER, February, 1889.

Iodoform in the Treatment of Diphtheria, *Boston Medical and Surgical Journal*, September 12, 1889.

Presidential Address—State Medical Society, SOUTHERN CALIFORNIA PRACTITIONER, May, 1896.

Acute Uterine Inversion, SOUTHERN CALIFORNIA PRACTITIONER, May, 1896.

Thyroid Therapeutics, SOUTHERN CALIFORNIA PRACTITIONER, November, 1896.

Vaginal Hysterectomy, SOUTHERN CALIFORNIA PRACTITIONER, February, 1899.

Nutmeg Poisoning, SOUTHERN CALIFORNIA PRACTITIONER, April, 1899.

Tubal Pregnancy, SOUTHERN CALIFORNIA PRACTITIONER, August, 1899.

Ethics of Nursing, SOUTHERN CALIFORNIA PRACTITIONER, March, 1902.

Oophorectomy and Hysterectomy for Epilepsy, SOUTHERN CALIFORNIA PRACTITIONER, April, 1901.

Care of the Sick in Hospital and in Their Homes, SOUTHERN CALIFORNIA PRACTITIONER, September, 1905.

College of Medicine of the University of Southern California—An Historical Sketch, *SOUTHERN CALIFORNIA PRACTITIONER*, October, 1905.

The Physician's Duty to His Fellow Practitioner and Himself, *The Boston Medical and Surgical Journal*, May, 1906.

The Physician's Duty to His Patient, An Address on Ethics, *SOUTHERN CALIFORNIA PRACTITIONER*, June, 1906.

CLIMATOLOGY.

Hay Fever in Southern California, *SOUTHERN CALIFORNIA PRACTITIONER*, July, 1886.

Southern California, A Climatic Sketch, *New York Medical Journal*, 1886.

Below Sea-Level—The Colorado Desert, *New York Medical Record*, 1888.

High Altitude of Southern California, *SOUTHERN CALIFORNIA PRACTITIONER*, September, 1888.

In the San Jacinto Mountains, *SOUTHERN CALIFORNIA PRACTITIONER*, October, 1899.

Mountain Climbing in a Locomotive, *SOUTHERN CALIFORNIA PRACTITIONER*, October, 1900.

The Idyllwild Sanatorium, December, 1900.

Mountains of Southern California, *SOUTHERN CALIFORNIA PRACTITIONER*, July, 1902.

Mountain Sanatoria for Tuberculosis, *SOUTHERN CALIFORNIA PRACTITIONER*, June, 1903.

LITERARY.

The Traducers of Shakespeare, *The West Coast Magazine*, February, 1909.

Shakespeare's Birthday in Stratford-on-Avon, *Los Angeles Times*, May 18, 1909.

SOCIOLOGICAL.

Methods of Capital Punishment, *SOUTHERN CALIFORNIA PRACTITIONER*, March, 1886.

Crime, Its Prevention and Cure, *SOUTHERN CALIFORNIA PRACTITIONER*, August, 1903.

Evils of Institutional Childhood—A Sociological Study, *SOUTHERN CALIFORNIA PRACTITIONER*, August, 1905.

The Nation's Outlook for Health, *SOUTHERN CALIFORNIA PRACTITIONER*, June, 1908.

The Delinquent Child in England, *SOUTHERN CALIFORNIA PRACTITIONER*, August, 1909.

CHRISTIAN SCIENCE.

The Author of "Confessio Medici" Draws Indictment of Christian Science.

The *Argonaut*, San Francisco, publishes a full review of a recent medical work called, "Faith and Works of Christian Science," by the author of "Confessio Medici," published by the Macmillan Company, New York.

We have not yet forgotten "Confessio Medici," that volume of delightful medical essays that proved their author to be not only a wise physician, but a gentle and humane philosopher, as well versed in the arts of kindness as in the lore of the schools. It is said that "Confessio Medici" was written by Dr. James Paget, and the statement is at least consonant with a reputation that will not suffer from his present assault upon "The Faith, and Works of Christian Science."

It is indeed time that some one of understanding should speak out with no uncertain voice. Here we have a physician of wide experience and of general philanthropy, a scientist of broad sympathies who is well abreast of his times in the best that those times have produced, one who recognizes gratefully the benefits of mental therapeutics, and who yet condemns Christian Science, not in obedience to

professional prejudice, but after an elaborate research into its fruits. Nothing is more evident in his book than the conscientious care with which it is compiled, nothing more obvious than his desire to render credit where credit is due and to avoid alike the suggestion of the false and the suppression of the true. It is impossible to read what he says without a new recognition of an imposture that in its cruelty, in its destruction of heart and conscience, exceeds all other impostures and infamies of its day.

But it is not only as a physician that the author makes his appeal to the sanity of civilization. The philosophic student who may be enamored momentarily by theories, that, whenever plausible, are always stolen and distorted, will find much to attract him in these pages. The religionist will find still more. He will find here some reasons for a protest already strangely belated against a terminology and an interpretation which, as the author well says, produce a feeling of physical nausea. He may even be brought face to face with the fact that Christian Science is not merely an eccentric heresy, a weird and twisted graft upon the original stem, but a negation of Christianity itself, and that to the destruction of the body it joins the starvation of the heart, and of the sentiments and emotions that make life tolerable. Its God is the "God of Being Supremely Comfortable," and it seeks its God not in pity and compassion, but in cruel, contemptuous and neglectful denial of whatever can interfere with its selfish complacency and its Satanic self-righteousness.

A single passage will suffice from that part of the book which deals with the religious aspect of the question. After dealing with the placid comparisons of Mrs. Eddy with Jesus Christ

and with the Virgin Mary, the author continues:

But we need not stay over the divine honors claimed or accepted or not refused by the founder of Christian Science. There is an admirable account of them in Lyman Powell's book. What concerns us is the parody, by Christian Science, of the Christian faith. It is not a question of orthodoxy; it is a question of decency. I learn from Lyman Powell that Christian Science, when she talks of the "dual personality" of Christ is reviving the Nestorian heresy; and I do not need his learning to see that her version of the doctrine of the Incarnation is new and feminine. I note, in passing, that she is the word, also the comforter, also the second advent, and the last day; and that she frequently receives honorable mention in the Apocalypse. I note, also, that she does not favor "audible prayer," or the use of prayers for the sick; and that she, who has endlessly revised and expurgated, without sense, without conscience, her divine revelation, says that we, who are not her disciples, worship "a corporeal Jehovah." Let all that, and much else go. Nothing will ever stop Christian Science from disgracing herself in public. But I do wonder that she did not keep her hands off the Lord's Prayer and the Lord's Supper.

Every Sunday, in every Church of Christ, Scientist, her version of the Lord's Prayer is read aloud, sentence by sentence, with that version which we owe to the mistaken views entertained, by Jesus, of Diet. The audience with one of the readers, recites the Christian version; and the other reader recites the version which Mrs. Eddy understands "to be the spiritual sense of the Lord's Prayer." The alternating sentences produce a well-

marked, almost physical, nausea, as if one had got suddenly into foul air. The difficulty is to sit still; to resist the longing to get away, out into the street, the sound of traffic, the sight of the sky. But I am not sure which is the worse, her parody of the Lord's Prayer, or her parody of the Lord's Supper.

The Lord's Prayer is given us with the Eddy interpretation. Perhaps one line will be enough to justify the author in the use of the word nausea. Here it is:

Our Father which art in heaven,
Our Father-Mother God, all harmoni-
ous.

Passing now to the medical aspects of the question, we find at once a thoroughness of investigation, an undeviating fair play, and a trenchancy of judgment that ought to be conclusive. Two hundred "testimonies of healing" are reproduced from the columns of the *Christian Science Sentinel*. They are not selected to buttress a theory, but they are taken as they were recorded between April and August, 1908. There is no need to give examples, because their precise parallels can be found in any patent medicine advertisement. They are all there in their delightful vagueness or in their disgusting precision. There is the lady with the "sense of fatigue," and there is the other lady—we all know her—with the "heart, stomach and nervous trouble." Then there is "Mrs. K.," who was "haunted with the fear of hereditary insanity," and who has been unaccountably healed of this fear. The whole garrulous tribe of the afflicted are represented in these 200 cases. They have "severe pains in the head," and "fevers," and "coughs," and "aches," and "complications," and "untold miseries," and "inflammations," and other things that may be left unnamed. They remind us so much of the good lady next door or over the

way who is so distressingly anxious to tell us all the repulsive medical happenings to her family for three generations back. Next to the possession of horrid symptoms, there is no such pleasure as in the telling of them. Here is a part of the author's judgment on the cases of these two hundred:

Anyhow, the vast majority of these testimonies are not worth the paper on which they are printed. What are kidney trouble, lung trouble, heart trouble, liver trouble, and eye trouble? They are not chronic nephritis, phthisis, valvular disease, cirrhosis, and cataract. Bowel trouble is ordinary constipation; stomach trouble is ordinary indigestion and aversion from food; spinal trouble is ordinary backache. These are not testimonies, but testimonials; every advertisement of a new quack medicine publishes the like of them. We all know Mr. A. and Mrs. B. and Miss C., who bear witness to So-and-So's Pills. They had spinal trouble and kidney trouble. There is a rough sketch of them doubled up with pain, or weeping at the family tea-table. And it is certain that the pills did them good.

Again, many of these witnesses are not telling the truth. They are so excitable, so ill-educated, but they fail to distinguish truth from falsehood. They have given false evidence, have perjured themselves, not willfully, but from sheer inability to be accurate.

Again, we all know that no statement is more inaccurate than the average statement of "what the doctor said." We listen with politeness to it, but without acceptance; we think to ourselves, I wish I knew what he really did say.

Again, what is the good of proclaiming that Christian Science heals diseases which get well of themselves? Time heals them. Here is a girl with a cold in the head; she is healed

"through the realization of the omnipresence of Love." Was there ever such an insult offered to the name of Love?

Again, the healing of one "trouble" must not be reckoned as the healings of half a dozen troubles. For example, a woman is subject to aversion from food, constipation, headache, backache, liver trouble, and eye trouble. Christian Science, bidding her eat more, amends all these troubles; and is thereby encouraged to order plenty of solid food in cases of gastric ulcer, and in cases of typhoid fever with ulceration of the bowels.

Again, what is the good of testifying to the healing of hernia? Was it hernia? Suppose that it was, what sort of hernia was it? Hernia will vanish for ever so long, and leave no sign of its presence. Or, take the cases of asthma. Were they asthma? Even then, asthma can hardly be called an organic disease. Or, take the "tumors." Were they solid tumours, or cysts, or effusions, or deep-seated abscesses, or inflammatory swellings? Who made the diagnosis? Were they subjected to microscopic examination by a skillful pathologist? Or, take the "dislocations." Were they X-rayed? Were they not the cases that bone-setters cure? Or, take the cases of "lung trouble." Most of them were ordinary bronchitis. One or two, not more, may possibly have been early consumption. Which of us has not friends who were consumptive, and now are strong and hard at work?

Let us apply a fair and mild test to these two hundred cases. Let us show them to any doctor; and let us ask him what he thinks of them. He will laugh at them; he will say, "What is the good of such cases? Why don't they report them properly? Why don't they give details? What do they mean

by spinal trouble, and all the other troubles?

Dr. Huber is quoted at some length. Contemplating a large number of Christian Science enthusiasts at Albany, he says "the opportunity to study hysteria was one the like of which I shall probably never again realize." Dr. Huber had investigated the alleged healings of organic diseases and he found then "pitifully without foundation." In other words, the people had not had the complaints claimed for them or had not been cured. At least there was no evidence of either.

So Dr. Huber made personal and very careful examination of twenty cases, where it was alleged that Christian Science had healed, not neurasthenia or "hysteria," but organic diseases, such as Bright's disease, or cancer, "I could find in all these twenty cases no 'cure' that would have occasioned the medical man the slightest surprise. What did surprise me was the vast disproportion between the results they exhibited and the claims made by Christian Science healers. A lady stated that she had had pneumonia. I asked her how she knew she had had pneumonia. She declared she knew, because her nurse 'could tell at a glance she had pneumonia.' No medical examination had been made. I asked what symptoms she had had. She told me she had purposely forgotten. I heard, during my investigation, of cases of yellow fever, phthisis, cancer and locomotor ataxia which had been 'healed in Christian Science.' But truth compels the statement that my efforts to examine these cases were defeated by the cheapest sort of subterfuge and elusion."

In the two hundred cases that the author cites he uses no discrimination. He takes these boastings as he finds them, but he shows very conclusively that in his impartiality he follows no

Christian Science example. For no failure is allowed to enter these records. Sometimes we hear of the failures at coroners' inquests. Sometimes the complacent physician, summoned at the last moment, gives the death certificate and there is no inquiry, no publicity. But there must be no failure in the official record, no stories of long-drawn agony, of miserable and needless deaths, or of the terrible self-reproaches that come too late. And so the author sums up:

"It is plain, from these evidences, and from the previous chapter, that Christian Science accepts all testimonials, even the most fantastical and illiterate. That she embellishes what she publishes. That she evades investigation. That her claim to cure organic diseases breaks down under the most elementary rules of criticism. That she does cure 'functional' diseases. That she has never cured, nor ever will, any disease, except those which have been cured, a hundred thousand times, by 'mental therapeutics.' From the setting up of the brazen serpent in the wilderness, and the works of healing in the temples of Aesculapius, mankind has used, for better, for worse, mental therapeutics. We live and move under suggestion, and are suggested from our cradles to our graves."

There is a concluding word on behalf of the children. For God's sake leave the children alone. It doesn't matter with grown-up people; they can believe what they like about good and evil, and germs and things.

For their bodily safety, children must believe in the reality of injuries, diseases and pain. Grown-up folk do not play with fire, slide down the balustrade, swallow foreign substances, kiss diphtheritic babies, climb spiky railings, and so forth. Every year, in this,

as in every other country, thousands of children are burned to death. Is it fair, to tell a child that pain is not real? I cannot imagine a sharper grief than for a mother to lose her child that way—Oh, mother, mother, you told me God wouldn't let me be hurt; and oh, mother, He has dreadfully.

There is another quotation from the Christian Science Journal. A little girl, five years old, fell out of a window. "The blood was spurting from her mouth; she seemed to suffer greatly if she was moved at all, and her legs seemed paralyzed, lifeless." That afternoon the mother went to a Christian Science meeting; "I went to the afternoon service, rejoicing greatly in my freedom from the sense of personal responsibility."

The author's concluding paragraph is a prophecy:

"What place will she hold a quarter of a century hence, in London, the one city at whose mortal mind can make a guess? Heaven be praised, I believe that she will hold none, or next to none; that her churches will be given to the nobler purpose of music; that lectures twice a week on mental hygiene; that her name will be written, her story told, not in lives, but in books of reference, thus: Christian Science (See Science, Christian.)"

THE TREATMENT OF HOOKWORM DISEASE.*

These are two interesting brochures issued by Surgeon General Walter Wyman. The New World Hookworm is technically known as the *Necator Americanus*, which means the American murderer. It is about 1-4 to 12 inch long and about as thick as a small

*Hookworm Disease in its Relation to the Negro. By Ch. Wardell Stiles, Ph.D., Chief of the Division of Zoology of the Hygienic Laboratory, United States Public Health and Marine-Hospital Service.

hairpin. In its adult stage the hookworm is found fastened to the lining membrane of the small intestines—sometimes in the stomach. It makes a wound, sucks the blood, and produces a poisonous substance which injures the person infected. It usually bores its way through the skin into the body but may be swallowed in contaminated water or food.

After entering the skin, these young worms make their way to the blood, and pass with the blood through the heart to the lungs. From the lungs the parasites pass up the windpipe, down the gullet, through the stomach, to the small bowels, where they gradually shed their skin two more times, become mature, and then begin their work of injuring the wall of the intestine, of sucking the blood, and of poisoning their victims.

The hookworm's eggs like typhoid germs escape from the patient through the stools. Careless disposal of feces is favorable to the spread of both of these diseases. In the South the negro is twice as subject to this disease as the white and it is believed to be due to carelessness in disposal of infected feces and the resulting soil pollution.

TREATMENT.—On Saturday evening give the patient a dose of epsom salts.

Thymol treatment on Sunday.—(1)

Position of patient: Instruct the patient to lie on his right side immediately before taking the drug and to remain in that position at least half an hour after. The reason for this is that many of these patients have enlarged stomachs, and if they lie on their right side, the drug has the benefit of gravity in passing rapidly from the stomach to the intestine; but if any other position is assumed, the drug may remain in the dilated cardiac portion of the stomach for some hours and result in considerable complaint on the part of the patient and delay of the drug in reaching the worms.

(2) **Time of dosage:** The time of giving and size of dose should be arranged on one of two plans, depending on existing conditions.

(a) The plan usually followed is: At 6 a. m., one-half of the total dose of thymol; at 8 a. m., one-half of the total dose of thymol; at 10 a. m., Epsom salts (never castor oil).

(b) If the case is an especially severe one, or if the patient has, upon the first Sunday's treatment, complained of burning or other effects of thymol, the following plan is adopted: At 6 a. m., one-third of the total dose of thymol; at 7 a. m., one-third of the total dose of thymol; at 8 a. m., one-third of the total dose of thymol (if unpleasant symptoms, as a sensation of severe burning in the stomach, have appeared this third dose should be omitted); at 10 a. m., Epsom salts (never castor oil).

(3) **Food:** No food is allowed until after the 10 o'clock dose of Epsom salts, but the patient is permitted to take a glass or so of water after the thymol, if he desires.

(4) **Thymol:** Finely powdered thymol, in capsules, preferably in 5-grain capsules, should be used.

(5) **General rule as to age:** In the table of dosage given in the next paragraph, the maximum dose per day to be adopted as a routine is given for various age groups. In determining the dose, however, the rule should be followed of taking the apparent rather than the real age and of not hesitating to cut down the dose even lower in case of unusually severe cardiac symptoms or other unfavorable conditions. Thus for a boy 16 years old, who appears to be only 12 years old, or in whom the anemia is especially marked, resulting in severe cardiac symptoms, the quantity of thymol should be reduced to the 12 or even the 8 year dose. Some authors give the impression that it is useless to give thymol for this disease unless the full dose is

administered. This view is not in harmony with my experience.

(6) Size of dose: The following doses represent the maximum amount to be used during one day's treatment for the age groups in question. It is practically the same table that the Porto Rican Commission has been using:

	Grains
Under 5 years old	7½
From 5 to 9 years old.....	15
From 10 to 14 years old.....	30
From 15 to 19 years old.....	45
From 20 to 59 years old.....	60
Above 60 years old	30 to 45

Total dose, to be divided as indicated in paragraph (2).

Repetition of treatment.—The foregoing treatment is repeated once a week, preliminary treatment Saturday evening and thymol on Sunday morning, until the patient is discharged.

HOOKEWORM DUE TO SURFACE PRIVIES AND LACK OF PRIVIES.

Ch. Wardell Stiles, Ph. D., Chief of the Division of Zoology, Hygienic Laboratory, United States Public Health and Marine-Hospital Service, says: Recent investigations on the subject of hookworm disease in the South have brought to light certain conditions of soil pollution which call for serious consideration because of their influence on the spread of disease, especially hookworm disease and typhoid fever.

By actual count of 366 farmhouses scattered over four Southern States, it was found that only 115 houses, or 31.4 per cent. were provided with privies, while 251 houses, or 68.5 per cent., had no privy. Thus, a condition of theoretical maximum soil pollution was occurring around 68.5 per cent of the houses in question. When it is considered that both hookworm disease and typhoid fever are

spread through night soil, the importance of this soil pollution becomes evident.

Even when a privy is present soil pollution may occur in case the out-house is not properly built or not properly cleaned.

Among several thousand privies examined, on farms and in various villages, the prevailing style was found to be the surface privy open in back. This is the poorest compromise that can be made, for not only is the danger present of contaminating the water supply in near-by wells, but soil pollution naturally occurs around the out-house, and this is increased by the fact that chickens, dogs, and hogs have access to the night soil and scatter the infectious material around. Further, also, flies and other insects either breed in or feed upon the excreta and carry fecal material to the food in the houses. An urgent necessity is present for a radical reform in this matter and for the abolition of this style of privy.

THE AMERICAN INSTITUTE OF HOMEOPATHY.

The American Institute of Homeopathy will hold their next annual meeting at the Virginia Hotel, Long Beach, next July. Dr. F. S. Barnard, chairman of the committee on arrangements, says he expects the number of delegates who will be present will be between 400 and 500.

"We have done everything possible to arouse interest in the convention and the responses from Eastern physicians have been encouraging," he said today.

"Efforts have been made to distribute literature giving information concerning Southern California among the homeopathic physicians, and this will aid in bringing the visitors to Los Angeles for the July meeting.

"We have been endeavoring to have the sessions of the institute held here

for several years past, and now that the convention is assured, we are anxious to arrange a warm reception for them.

"All of the homeopathic physicians in Southern California are interested in the plans, and are assisting us in our efforts to attract the Eastern delegates."

Among the chairmen of the various committees who will have charge of the plans for the meeting are the following physicians:

Dr. J. W. Hawkes, honorary chairman; D. F. S. Barnard, chairman of the committee of arrangements; Dr.

T. C. Low, secretary; Dr. E. C. Buell, treasurer.

Subcommittees—Dr. E. C. Buell, finance; Dr. W. E. Waddell, hotels and entertainments; Dr. T. C. Low, exhibits; Dr. W. J. Hawkes, reception; Dr. W. E. Nichols, press; Dr. Eleanor F. Martin, ladies; Dr. W. E. Nichols, new members; F. S. Barnard, propaganda.

The national officers are: Dr. James W. Ward, San Francisco, president; Dr. Herbert Dana Schenck, New York, first vice-president; Dr. Sarah M. Hobson, Chicago, second vice-president; Dr. J. Richey Horner, Cleveland, secretary; Dr. T. Franklin Smith, New York, treasurer; Dr. William O. Forbes, Hot Springs, Ark., registrar.

CORRESPONDENCE.

EXPERT TESTIMONY.

To the Editor:

Concerning expert testimony. The great hue and cry concerning the corrupt state of medical expert testimony in this country is a hue and cry that proceeds solely from the side of legal interest, who would like to have the whole matter put entirely in their hands and the whole subject of expert testimony made a part of court patronage. Of the two evils, viz.: the extension of court patronage or a persistence of the methods at present in vogue, the extension of court patronage would be infinitely more disastrous than the conditions under which we now struggle.

One only has to read the history of the courts of Rome, of the middle ages, or of modern times to realize that an extension of the principle of favoritism in the courts is one of the most pernicious tendencies of the present discussion that has arisen out of the Thaw case, and that the ferment and uproar is kept alive by those who hope to get

something out of it. Foolish doctors keep it up and pull the lawyers' chestnuts out of the fire.

Regarding the condition in Germany, they have a great many civil cases and a regularly-appointed staff of experts who decide all medico-legal matters. Their opinions are usually accepted by the court, and as a rule, they are carefully trained men of science, but there may be an appeal from their opinions with the right to have independent experts, just as with us. Inasmuch as the whole fundamental principles of the German law are absolutely different from those of this country, no comparisons are worth anything because one is dealing with an entirely different method of arriving at conclusions. As a rule the German court arrives at a conclusion of guilt on the part of the prisoner a priori, not as in English jurisprudence, where the presumption is that he is innocent, until proved guilty, so that there practically only one side has to be proven, whereas here two sides have got to be proven, and the

whole method of taking testimony, and what is known as laws of evidence, have no place over there. A trial court on cases similar to our prevalent murder cases, with insanity defense, is so absolutely different in every respect that to draw any conclusions of the applicability of the German methods to our conditions is nonsense, both scientifically, legally and in the name of common sense.

Further, if one wants to make any radical departure from the methods employed by us the change must be made in the legal methods and not in the medical ones. So long as we are permitted in this country to have half-truths—one-sided hypotheses—presented to one class of men, and the other half-truth and another stated hypothesis submitted to another, there can be no modification of the present confusion.

J. T. FISHER.

BOOK REVIEWS

NAVAL HYGIENE. By James Duncan Gatewood, M.D., Instructor in Naval Hygiene, United States Naval Medical School, Washington; Medical Inspector, United States Navy. Prepared by the direction of the Bureau of Medicine and Surgery, and published by permission of the Navy Department. 8vo, 779 pages, with eight colored plates and 105 other illustrations. P. Blakiston's Son & Co., Philadelphia, 1909. Cloth, \$6.00 net.

Much has been written upon Hygiene of the Army, but Dr. Gatewood's book is the first comprehensive work upon Naval Hygiene. The book is divided into eight chapters, entitled: Naval Vital Statistics, Basis of a Navy's Hygiene; The Air Without the Ship and the Air Within the Ship; Light Without and Light Within the Ship; The Ship's Water Supply and Drainage; The Navy's Food; The Navy's Clothing; Disinfection on the Ship; Naval Recruiting.

This book at first glance would seem a special work for Naval Surgeons rather than one of use to civil practitioners. Careful reading, however, reveals in it a wealth of information upon hygiene of the man aboard ship, that must prove valuable reading to all medical men of a maritime city. The Panama Canal and our growing commerce in the Pacific brings new

medical problems to this coast. Health ashore will more and more reflect health conditions on the water.

A TEXT BOOK OF PRACTICAL THERAPEUTICS. With especial reference to the application of remedial measures to disease and their employment upon a rational basis. By Hobart Amory Hare, M.D., Professor of Therapeutics in the Jefferson Medical College of Philadelphia. Thirteenth edition, thoroughly revised. Octavo, 951 pages, with 122 engravings, and 4 full-page colored plates. Cloth, \$4.00, net; leather, \$5.00, net; half morocco, \$5.50, net. Lea & Febiger, Philadelphia and New York, 1909.

This volume has been popular from the time its author first presented its plan of covering the subject in four parts: one the general underlying principles of therapeutics; two, consideration of individual drugs; three, remedial measures other than drugs, and dietetics; four, treatment of diseases. There are two indices, one of drugs and remedial measures and the other of diseases and remedies with annotations.

Hare's method of handling his subject has given his book the distinction of being in its thirteenth edition. He is in one sense a therapeutic optimist, but with an optimism, however, which is based on pathological rather than on empirical indications. This new edition bids fair, we believe, to keep up the excellent reputation made by its predecessors.

THERAPEUTICS OF RADIANT LIGHT AND HEAT AND CONVECTIVE HEAT. By Wm. Benham Snow, M.D., author of "A Manual of Electro-Static Modes of Application, Therapeutics, Radiography, and Radiotherapy," "Currents of High Potential of High and Other Frequencies," Editor of the Journal of Advanced Therapeutics, and late Instructor in Electro-Therapeutics in the New York Post-Graduate Medical School. Scientific Authors' Publishing Co., 349 West 57th St., New York. Price \$2.00, net.

This manual of upwards of 100 pages, illustrated and containing eight full-page plates illustrating the methods of treatment has been prepared to meet the demand for a condensed and practical manual on Radiant Light and Heat Therapy. Chapters have been added showing the contrast between Radiant Light and Heat, and Convective Heat. A chapter is also included showing the comparative actions of Radiant Light and Heat and the Roentgen Ray.

The work has been prepared with great care as to accuracy and detail, and includes the physical and physiological actions and therapeutics of the subjects treated.

THE GREAT WHITE PLAGUE—TUBERCULOSIS. By Edward O. Otis, M.D., Professor of Pulmonary Diseases and Climatology, Tuft's College Medical School, President of the Boston Tuberculosis Association, etc. Cloth, 321 pages. New York, Thomas Y. Crowell & Co.

This is a book intended especially for laymen. It fulfills its mission admirably and is certain to be popular with physicians who wish their patients to have a better understanding of so important a subject.

On the other hand, the volume cannot be other than a valuable factor in spreading among the intelligent public the knowledge of those fundamental principles involved in the spread and cure of tuberculosis, which it is so necessary the people at large should know.

The volume deals largely with the causation and prevention of disease, limiting itself as regards treatment, largely to a consideration of the hygienic-dietetic life, both within and without the sanatorium.

The style of the author is excellent,

the grouping of subjects logical and the general readability of the volume very good. The price is one dollar, so that with its valuable contents, attractive binding and makeup and low cost, it should be able to reach the very persons for whom it was especially written. The anti-tuberculosis movement of our land is under distinct obligations to Dr Otis for this valuable work.

PRIMER OF SANITATION. Being a simple work on Disease Germs and How to Fight Them. By John W. Ritchie, Professor of Biology, College of William and Mary, Virginia. Cloth, 200 pages. Yonkers-on-Hudson, New York, World Book Company, 1909.

This is a book intended to teach fifth or sixth-grade pupils how to escape germ diseases and how to co-operate in conserving community health—public hygiene. The illustrations are diagrammatic and bring out splendidly the thoughts which are intended should be conveyed to the young readers.

The style of the text is clear, the grouping good, the facts presented exact. It would be a distinct advantage to the nation if such a text-book as this could be introduced everywhere into the grammar schools of the country. The volume will bear reading by nurses and by older persons as well, and is by no means without interest to medical practitioners.

THE RENEWAL OF LIFE. Arguments for the Subcutaneous Injections of Oil for the Prevention of Senility and Disease, the Cure of Consumption, etc. By Thos. Basset Keyes, M.D., Chicago, Ill. Cloth, 206 pages. Tubercle Press Bureau, Chicago, Ill., 1909-1910.

In his preface the author states his belief that in the Cure of Disease with subcutaneous injections of oil, he is offering "the greatest therapeutic advance that has ever been made." While the author presents some interesting case reports, it cannot be said that the argument is entirely convincing nor the mass of evidence sufficiently great to warrant the conclusion quoted in his preface. The book, like the treatment perhaps is of some merit, but not in the superlative degree evidently believed in by the author.

MISCELLANEOUS—THERAPEUTICAL HINTS

DOCTOR FELL.

I do not love you, Doctor Fell; the reason why, I'll briefly tell:

The doctor of the olden days had kindly words and pleasant ways; and though his pills were on the bum, and sent folks off to Kingdom Come, and though he liked to swell the hosts of skeletons and sheeted ghosts, it never was his foolish plan to use a saw on every man. Unlike the modern maniacs, who carve their patients with an axe, he dealt out calomel or nux, and soaked us for a pair of bucks, and if he killed us—good old soul! he left us to be planted whole.

When I am sickly and unstrung, you ask me to unfurl my tongue; you feel my pulse and prod my back, and say my liver's out of whack, and then you shed your vest and coat, and push a lantern down my throat, and say: "Great Caesar! What a heart! I'll have to take you all apart." And on your table I am laid, while you go out to hunt a spade, to dig around among my works and find the blamed old germ that lurks around the angles of my frame—the way you carve me is a shame.

When winter comes, with frost and snow, I have a chilblain on my toe; and when for liniment I beg, you want to amputate my leg; and when my throat gets sore and raw, you want to cure it with a saw; to cure my baldness, you, I ween, would run me through a guillotine. A leg of mine is now at rest among the doctors of the West; an Eastern doctor has in brine about eight inches of my spine; the jaw that once adorned my mouth, is kept in pickle in the South.

I do not love you, Doctor Fell; you carve too fluently and well; I fear you and your edged tools; I'll send to correspondence schools for absent treat-

ment when I'm ill—or hit the good old-fashioned pill.—*Walt Mason in the Emporia Gazette.*

CYSTITIS.—In the treatment of all cases, rest in bed, with the hips elevated, will often give more or less relief from the strangury and the constant desire to urinate; by elevating the hips the urine accumulating in the bladder flows away from the most congested and sensitive part of the bladder. Some recommend opium and belladonna to control the pain. Heat to the perineum and above the pubis, and hot sitz baths will greatly relieve the tenesmus, and to some extent lessen the congestion of the mucous membrane of bladder. Sanmetto should be freely given, each dose in half wineglass of hot water, and if the urine is acid, potassum citrate will render the urine less irritating.

INCOMPARABLY THE BEST LOCAL ANESTHETIC—Kylene: Which is absolutely pure chloride of ethyl (Fries Bros., New York) is being more and more recognized as a most valuable local anesthetic. Its many advantages include being harmless, no matter how frequently used; always ready for instant use; easily applied and with uniform results, and convenient to carry. Complete anesthesia in thirty seconds. These are all important points for the operating surgeon.

SABALOL SPRAY.—In the treatment of inflammatory infections of the nasal and naso-pharyngeal cavities, Sabalol Spray fulfills four very important indications: First, it allays irritation by covering the mucous membrane with a soothing, oily coating. Second, by virtue of its antiseptic action it prevents bacterial growth, and reduces the resulting inflammation. Third, it favorably modifies the character of the se-

cretions and also acts as a deodorant. Fourth, it materially aids in restoring the relaxed mucous membrane to a healthy condition.

This preparation was originated by T. C. Morgan Company, 102 John Street, New York City, from whom samples and literature can be obtained on request.

Lieutenant Shackleton in a recent address in London said:

A great many things of interest to medical science were learned in the antarctic. One of the most interesting things they discovered from a medical point of view was that the rotifers, creatures which lived in a temperature of 50° to 60° below zero, yet were none the worse for being subjected to a heat of 100° to 200°. In his expedition they had with them three medical men, and no deaths occurred. One man lost an eye and another a big toe, the operation being performed successfully under trying conditions. The temperature of the members of the expedition also varied considerably, falling as low as 93° and 94° F., but going up to normal after meals.

They never caught cold in the Polar regions until they opened a bale of clothing which had been packed in England. The germs were thus introduced into the antarctic, and those who remained indoors after putting on the clothes suffered from cold, while those who went out in the open did not.—*N. Y. Medical Journal.*

John Bright used to tell how a barber who was cutting his hair once said to him:

"You 'ave a large 'ead, sir; it is a good thing to 'ave a large 'ead, for a large 'ead means a large brain, and a large brain is the most useful thing a man can 'ave, as it nourishes the roots of the 'air."

A PRACTICAL TEST FOR INDICAN IN URINE.—The following method is recommended by F. C. Askenstelt: To 10 c.c. of urine in a test-tube add 10 c.c. of the ferric chloride solution and mix by inverting the tube once; then add quickly 8 c.c. of chloroform, and extract the indigo in formation by shaking the tube 400 times, holding it in a horizontal position. After this let the chloroform fall to the bottom of the tube, then pour off most of the supernatant fluid, fill the tube nearly full with water, invert it a few times to wash the chloroform, and let this again precipitate in the tube and pour off most of the water. Repeat twice this process of washing, taking care that no chloroform escapes from the wash water, and allowing not more than 2 or 3 c.c. of the last wash water to remain over the chloroform. Now add from 13 to 15 c.c. of alcohol and mix by shaking. A clear blue fluid should result. If hazy, add 1 or 2 c.c. more of alcohol until the fluid clears up. Compare the color of this fluid with an equal quantity of a standard solution of indigo blue in the second test-tube by holding the two test-tubes in front of a white surface. This standard solution is made by pouring into the empty second tube a quantity of water equal to the amount of the fluid in the first tube, and then dropping the stock solution of indigo blue into the water, inverting the tube after each drop, until both solutions have the same amount of blue color. If this requires four drops of the stock solution the percentage is 0.0004; if five drops 0.0005; if six drops, 0.0006 etc.

HOME NURSING HINTS.—Visitors to the sick-room should always be seated facing the patient, but the chair should be placed away from the bed, to avoid contact with the clothes, or jarring of furniture. If visitors do not leave after making a short call, the necessary but rather ungracious duty falls to the nurse

to request them to do so. The cheery friend is as good as fresh air for a patient, but is best in small doses.

No matter whether the disease is contagious or not, the proper purifying of the air should always be attended to. If the room has a set bowl, it should always hold a quantity of water in which Platt's Chlorides has been poured. Keep one or two receptacles about the room containing a solution of the Chlorides. Wring out a towel in the solution and hang it in some convenient place and the air of the room will be free from any odor of sickness.

MISS M. ANDERSON, an experienced nurse and a reliable woman has a home at 41 Chestnut Ave., Long Beach, California, where she is especially prepared to care for old ladies. She will send particulars by mail on inquiry.

'Tis mirth that fills the veins with blood,
More than wine, or sleep, or food;
Let each man keep his heart at ease;
No man dies of that disease.
He that would his body keep
From diseases, must not weep;
But whoever laughs and sings,
Never he his body brings
Into fevers, gout, or rheums,
Or ling'ringly his lungs consumes,
Or meets with aches in the bone,
Or catarrhs, or griping stone,
But contented lives for aye;
The more he laughs, the more he may.
Beaumont and Fletcher, 1635.

The Katharmon Chemical Company, St. Louis, Mo., have issued a neat cloth bound booklet giving a scientific history of Cod Liver Oil and showing the evolution from the gross oil to the elegant Hagee's cordial of the extract of Cod Liver Oil.

Pepto-Mangan (Gude) supplies in a most palatable and assimilable form the needed iron in a milk diet. This prevents the anemia that is often the concomitant of a milk diet. Pepto-Mangan (Gude) is also valuable in the auto-toxaemia of intestinal putrefaction.

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Is it fair to your patients to use any other?

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EPIDEMIC DIARRHŒA.

Another fly-borne affection of a deadly nature is epidemic diarrhœa, and the evidence in support of the contention that flies are largely concerned in the dissemination of infantile diarrhœa, especially in urban districts, is so convincing as to be practically irrefragable. But this is almost wholly, after all, a question of a pure milk supply, for it is by contaminating milk that flies play their part in spreading epidemic infantile diarrhœa. There can be no doubt

that if milk is effectually protected against flies, diarrhœa among young town children would be much less prevalent than it is now. Dr. J. T. C. Nash, writing in the *Lancet*, December 5th, 1908, demonstrated by means of experiments undertaken by himself, the close connection between flies and epidemic diarrhœa. The results of his experiments with exposed and protected milk proved that a marked and rapid deterioration of milk exposed to flies took place, there being in the course of twenty-four hours approximately 40,000,000 more bacteria per cubic centimeter in the exposed milk, and ten times as many organisms capable of growing on agar at the body temperature. In round numbers, the exposed milk showed 700,000 bacteria per cubic centimeter capable of growing at the body temperature, against only 70,000 bacteria in the case of milk protected from flies.

In all large cities there are in the hot weather an immense number of flies. Furthermore, milk in the poor districts is never properly protected. The consequence is that flies contaminate the milk to a fearful extent. The greater the number of the flies the greater the milk pollution, and in fly-ridden districts infantile diarrhœa of an acute and virulent type is almost certain to prevail unless extreme care be taken to protect milk.

It would undoubtedly be a very difficult and perhaps an impossible task to keep flies down to such small numbers that they would be no source of danger to human life. But a well conducted war against flies could but result in a considerable diminution of their number, with a correspondingly satisfactory outcome so far as infantile diarrhœa is concerned. In the meantime milk sellers and mothers can effect much by dis-

playing great care in the protection of milk. Unfortunately, many people are lamentably ignorant in regard to the bad results which are certain to follow carelessness in protecting the milk supply and need education both by example and by precept. Medical and lay journals should lend their aid in furthering this object.—*Medical Record*.

THE TREATMENT OF CRURAL HERNIA.

Dr. J. Exalto reports from the clinic of Professor von Eiselberg, Vienna (*Wiener Klin. Wochens.*), 134 cases of crural hernia operated upon during the years 1901 and 1908. Of the patients 114 were females. In 72 the hernia was incarcerated. In 52 it was on the left side, in 77 on the right, and in 5 bilateral. There was no operative mortality in the non-strangulated cases. In 34 of 56 cases of intestinal incarceration the gut could be reduced, although in 10 suspicious areas were first covered with a few Lembert's sutures. In 17 the intestine had to be resected. Of the 72 cases of incarcerated rupture, 19 died, a mortality of 26.4 per cent. The mortality in the 17 cases of primary intestinal resection was 47 per cent. In almost all the fatal cases death was due to peritonitis.—*International Journal of Surgery, New York*.

SOME OF THE EFFECTS OF EXCESSIVE SMOKING.

Mann (*British Medical Journal*) describes the familiar cardiac disorders following tobacco excess. The writer says that it is obvious that with all physiologically active substances the question of degree is largely determinative of the results produced by any agency that is capable of affecting the health. Most men, if they choose to smoke, can do so within certain limits

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without injuring their health; some men can exceed such limits with impunity. The extent of the limitation must be determined by each man for himself; and if he is wise he will keep well within the borderline and will hold to his resolution. Here lies the difficulty; the growth of a habit overrides discretion. The habit of excessive smoking is more insidious in its development than that of excessive drinking, for the results are much less obvious. An alcoholic may be appealed to by his friends or admonished by those in authority; this rarely happens to the adult smoker, unless he consults his doctor about "indigestion and palpitation," and admits that he smokes to excess; then probably the necessary warning will be given.—*Charlotte Medical Journal*.

TO ABORT A FELON.

A commencing felon will always be aborted by the local application of alcohol under perfect air-exclusion. Cotton is saturated with alcohol and placed around the affected part and a thin rubber finger stall applied over all. Seventy-two hours usually suffices to give relief or even effect a cure. Dr. Eastman, of Indianapolis, learned this in von Bergmann's clinic in 1897, since which time he has not had occasion to lance a single felon, the treatment of which was begun in time by this method. (Medical Council.) I have used this method with complete success in three successive cases with complete air exclusion for twelve hours only each time.—*Theodore Proxmire in The Clinique*.

DAMAGES FOR EYESIGHT RUINED AT SCHOOL.

If anything the school ought to provide a healthier environment than the home, and no parent ought to be able to say that the health of a child has been affected for the worse by attendance at school. Unfortunately, this precept does not always stand the test of practice and every physician can recall a case in which communicable disease, mental and nervous strain, etc., has been attributable to the State's mandate that education shall be compulsory. A woman in Indiana has sued a township for \$1000 damages for injuries done to the health of her child. She claims that the child's eyesight was materially damaged at school on account of inefficient and wrong introduction of light; reflex nervous trouble followed the eyestrain, with impairment of nutrition, and finally the invasion of tuberculosis. It is said that physicians stand ready to testify that this impairment of health is, in their opinion, the result of unsanitary conditions at school, and the State Board of Health seems to be ready to co-operate in teaching so-called practical business men the money value of school hygiene.—*North American Journal of Homoeopathy*.

A solution of alum of a strength of about twenty grains to an ounce distilled water, applied at night, often gives gives immediate relief in chafing.

TREATMENT OF SWALLOWED FOREIGN BODIES.

Dr. Peukert (*Deutsche Med. Wochenschen*) warns against the administration of purgatives in these cases (especially if needles), as perforation may thereby be promoted. If needles are present in the gastro-intestinal tract it has been recommended to give finely cut woollen fibre beaten up with an egg.

The needle then becomes surrounded with the mesh of wool, which aids in its safe evacuation. Active surgical intervention is necessary if the foreign body is of large size or of dangerous character, or a large number has been swallowed. Peukert reports the case of a young girl who had swallowed a needle in July and was admitted to the hospital at the beginning of August. She had at first suffered with slight pain in the chest, which subsided after a few days. X-ray examination was negative. After several days' observation it was assumed that the foreign body had left the intestine, but three weeks later she was attacked with sharp pain in the gastric region and vomiting. On her return to the hospital repeated Roentgen examinations gave a shadow in the pyloric region. Owing to the persistence of the symptoms, laparotomy was performed and the needle found embedded in the pylorus. It was easily extracted and complete recovery ensued.—*International Journal of Surgery*.

STUDY OF MEDICINE IN FAR EAST.

The objection shown by the court at Peking to accept the aid of European surgeons during the illness of China's late rulers does not seem to be shared by the people of Hanci in Indo-China. Here it seems that the French have established with considerable success a school of medicine. There are ninety students enrolled, some studying the science from the human standpoint, some qualifying as veterinary surgeons, while a number of young women have entered as obstetric students. One lady who has qualified has been signally successful in charge of a hospital for the poor at Phuly. Eight out of ten of the students come from Cochinchina.—*The Woman's Medical Journal*.

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DR. H. BERT ELLIS, DR. GEO. L. COLE and DR. W. JARVIS BARLOW,
Associate Editors.

THE PRESENT STATUS OF MEDICINE AND SURGERY.*

ANDREW STEWART LOBINGIER, A.B., M.D.

Never before in the world's history has the vogue of liberal culture had such wide acceptance. In this renaissance of learning, medicine and surgery have taken a very advanced position. We cannot, however, consider the present-day development of the science of medicine other than as an expression of the development which is universal in every department of scientific investigation, and whose notable achievements all must share with equal credit.

It is not very wide of the precise truth to consider modern medicine as young as the present generation. All that is essentially distinctive in modern practice dates from the birth of bacteriology in the early eighties. The practical application of our knowledge of bacteria and their destructive toxins was not effective to any general extent until 1890. That substantially marks the beginning of aseptic surgery upon which every achievement in the modern practice of this great art is founded—is, in fact, made possible.

These fundamental studies were absolutely necessary to the correct interpretation of disease. We knew certain degenerative phenomena occurred in the tissues, but we groped blindly for the cause until the illuminating studies of Koch, Baumgarten, Erlich and Pasteur cast a flood of intelligence upon this hitherto unknown field.

The whole medical world suddenly awakened and the quickening took the form of intense interest in research. Laboratories for the study of the causes of disease and for the more critical interpretation of the processes of disease in the various organs and tissues of the body, were founded in every great university in the civilized world. It was at once recognized that in laboratory methods a most valuable adjunct had been acquired for the elucidation of bedside study. Here, then, almost within the memory of the youngest member of this club, was the birth of the most benignant of sciences and the beginning of a conserving in-

*Address delivered before the University Club of Los Angeles October 1, 1909.

fluence on modern civilization which is destined to contribute immeasurably to the happiness, security, longevity and usefulness of mankind.

It is a story full of fascinating incident, but far too long and complex to relate here, how modern medicine and surgery have fought their way up through the shadows of superstition to the light of day. Today public sanitation and many, in fact most, of the laws of preventive medicine are as precise, exact and demonstrable as a problem in geometry. Of an equal degree of precision is the modern surgical operation in the hands of a skilled and thoroughly trained surgeon. It can be predicated in more than ninety per cent. of the cases which come into the hands of the general surgeon today precisely how the patient will withstand the operation and what results and benefits will accrue from this procedure. There is less hazard in the average operation done by a skilled scientific surgeon, than there is in the car or motor ride to one's office of a morning.

Concrete statements such as these are difficult for the lay mind to believe; but the proofs are not wanting and there is abundant data in substantiation of them.

There still lingers with us the tradition of the terrors of the operating table in the pre-anaesthetic epoch, and of death by blood poisoning in the pre-Listerian period. Besides there are men in every profession attempting to do a class of work which by qualifications and training they are wholly unfitted to do.

The practice of surgery is unhappily no exception to this fact, and no other thing has done so much to inspire distrust and bring discredit upon the profession as the number of men who, without special study, experience or training, will assume the grave and difficult responsibilities of surgery.

As time passes and higher standards

of training and scholarship are demanded, these abuses will abate.

Although this is peculiarly an age of specialism and to a very large degree the work in medicine is now, and must continue to be, done by men specially trained for their distinctive fields of practice, one cannot do less than pay a grateful tribute to the family physician, whose useful life, versatile character and gentle ministries, as friend and counsellor of the family, endeared him to every one of us. In his passing we must ever recognize the great place he has filled in the evolution of medicine.

Among the multitude of influences which bear directly or indirectly on the development of a great idea, whether in the science of government or in the study of natural phenomena, one cannot escape the primary estimate of how it will affect our fellow man.

That predicate is a sort of station on which the least and simplest of us can get a foothold and take our bearings. For after all the greatest mission in life is to do good to others and he that lives most and greatest is he from whose spirit and energies there is the most lavish outpouring of ministry to those who suffer. The practice of medicine and surgery is a daily discipline in giving which in itself should lift every one of its votaries from all that is petty, commercial and sordid. But the inexorable demands of this insistent age call for something more than sympathy and tender ministries; the man of science must "know how," and in thus making good he need lose none of his gentility.

All over the world today there is both an elevation and a readjusting of the curricula of our academic and professional schools in adaptation to the requirements of modern standards. On the continent for years the academic degree and five years of professional study embracing clinics and internships

in hospitals have been required for the degree in medicine. In America the combined six years' course, at the end of which the Bachelor and Medical degrees are conferred, has grown greatly in favor, and for a large number of our best universities is destined to be the plan of general adoption. Many will continue to prefer four years' academic training taking the Bachelor degree, and then regularly entering for four years more of professional training. The Association of American Medical Colleges allows still the high school diploma to admit the student to the professional school. But this is a concession destined to be shortlived. Without it most of the little struggling schools of the West and South could not possibly survive, but it is only a matter of time until the most of these will be compelled to consolidate or disband.

There are now in America over 144 medical schools. The work could be done with more credit and efficiency by thirty, and every one of these should be connected with a great university having ample endowment and facilities for a professional training which should compare favorably with that found abroad.

In many of these schools requisite apparatus for laboratory instruction is wanting and clinical facilities for the practical elucidation of a subject are quite inadequate. Students trained under such tutorship are hedged about by limitations which must harass and dwarf their whole professional lives. I have followed the careers of these young men for more than twenty years and the exceptions to this observation only emphasize its painful truth.

What can be done? Nothing but steady and inexorable elimination. We must have fewer schools and better ones.

Many a young man of good mind

and high purposes has unwittingly become the victim of bad advice; many another young man who has not the means for a long and costly training, hopes after a time in practice to supply the deficiencies by post-graduate work. But the time never comes when such a course can be conveniently taken, and if it did, such a course falls far short of supplying what a great center of learning only can give to the student mind—the indelible stamp of standards in scholarship.

What young men preparing for a professional career need most to learn is dogged patience and plodding work. The demand of the period is not for scholarship alone, or so-called practical efficiency alone, but for scholarship *and* efficiency, a composite which is the most natural result of university training. One of the most valuable possessions of a young man so trained is the lively sense of his limitations and the need of seasoning and time for maturing. It is the half-baked product in every profession which degrades its practice and its ethical standards.

In the conquest of an imposing list of decimating, contagious and infectious diseases in recent years, we have a remarkable illustration of medical progress which almost baffles belief.

In 1893 the mortality in diphtheria was 55 per cent. In 1895, two years later, through Behring's great discovery of an antitoxin, Bayer showed in an analysis of 230,000 cases the mortality to have fallen to 16 per cent. Since then it has fallen to 4 per cent.

Previous to the persistent work of Flexner the appalling devastation among children of epidemic cerebro spinal meningitis was a terrifying menace to every home. Today there is strong reason for the belief that as glorious fame as came to Jenner, or in recent years to Ronx or Behring, will be awarded Flexner's efforts.

Recent work done on infantile paralysis promises almost as flattering results. The work done by Laveran and Bignami on malaria and the discovery of the important role played in the transmission of the parasites of this disease by the *anopheles* mosquito is only second in importance to the magnificent achievements of Reed, Carroll and Lazear in their dramatic discovery of the cause of the transmission of yellow fever in the *Stegoma* mosquito. Through these brilliant discoveries Gorgas was enabled to clean up Havana and make Cuba safe for industrial enterprises. This great sanitarian is again demonstrating the supremacy of science in the Isthmian Canal Zone. Colon and Panama and the intervening belt are as sanitary and inhabitable as our own municipality, through the heroic sacrifices which cost the life of poor Lazear and almost that of Carroll. How these heroes and more than twenty others offered their lives as willing sacrifices to prove that yellow fever could only be conveyed through the bite of a certain mosquito, is the most tragically dramatic event ever recorded in science. Because of this great sacrifice, offered willingly on the altar of medical research, thousands of lives are saved to usefulness, and the greatest engineering feat in the history of man is made possible.

In the forests and glades of West Coast Africa a similar great research is being made into the cause of sleeping sickness. That the realization of this discovery is at hand, all now well know.

Many other instances of medical research work now in progress might be given, most of which are of quite equal importance with the instances cited. A sanitary crusade in very active progress now on this coast is that of the eradication of bubonic plague.

It is well known that among the rodents which are the most common hosts

for the plague bacillus is the ground squirrel, indigenous here. The only case of plague we have had in Los Angeles resulted from the bite of a squirrel. In Contra Costa and Alameda counties 2000 squirrels are killed every day, of which 1 per cent. are found to be infected with the bacillus of bubonic plague. Only sleepless vigilance on the part of the Surgeon-General and the health boards of the various States of this coast can avert a devastating epidemic of bubonic plague.

These, gentlemen, are some of the evidences of progress in medical science and the altruism of a profession which in every epoch, but never so much as now, has counted itself honored in lavish service for the welfare of mankind.

It has never asked emolument or sought for public favor, but has been glad in any opportunity to do more and greater things for humanity. When it appeals to this commonwealth through Sacramento for better and higher restrictions for medical practice, it has in view this same public welfare. With a singleness of purpose it has striven to conserve and upbuild alike municipal and national public safety. In time of war it has gone fearlessly braving dangers at the front along with the line, but also subservient to it. Some day this government will be glad to give it authority independent of the line for that instant and obligatory service which only the Medical Corps can render. Some day we shall have a member of the Cabinet—a Secretary of Sanitation, if you please—whose great office shall ensure to the army, to the navy, to the great quarantine service of our ports, and to the vast and varied needs of this mighty Republic, a security of cleanliness and health which shall dignify and honor the best in modern science.

THE BARLOW SANATORIUM, LOS ANGELES, CAL.

Report on Sixty-six Cases Discharged During the Year, September, 1908-September, 1909.

BY R. L. CUNNINGHAM, A.B., M.D., RESIDENT PHYSICIAN, BARLOW SANATORIUM.

We have already published, in the regular Annual Report of the Sanatorium, in tabulated form the results of treatment in the patients discharged during the year recently completed. It is our purpose to discuss those results at somewhat greater length in this place, trying to present them thus for the benefit of those who do not care to study tabulated reports.

With a view to helping in the establishment of uniformity, we have followed the suggestions offered by Dr. Lawrason Brown, of Saranac Lake, N. Y., which appeared in *The Journal of the American Association* on Jan. 30, 1909, and which have since been reprinted in the same periodical on Sept. 25, 1909, as a committee report approved by the American Sanatorium Association. The advantages of having all institutions employ the same scheme in classification, are too obvious to need further emphasis. It is in this way alone that we may hope to compare statistics or collect large numbers of records from widely separated sanatoria. Therefore, while not ideal, it offers the best means available for our purpose.

There were sixty-six patients discharged during the year. As classified upon admission they fall into the following groups:—

Incipient	Stage I (Turban) —	—
Moderately advanced	Stage I	10=15.1%
Moderately advanced	Stage II	40=60.6%
Moderately advanced	Stage III	2=3.0%
Far advanced	Stage III	14=21.1%

The most striking point gathered from this statement is the fact that no individual could be considered as having an incipient form of tuberculosis. When

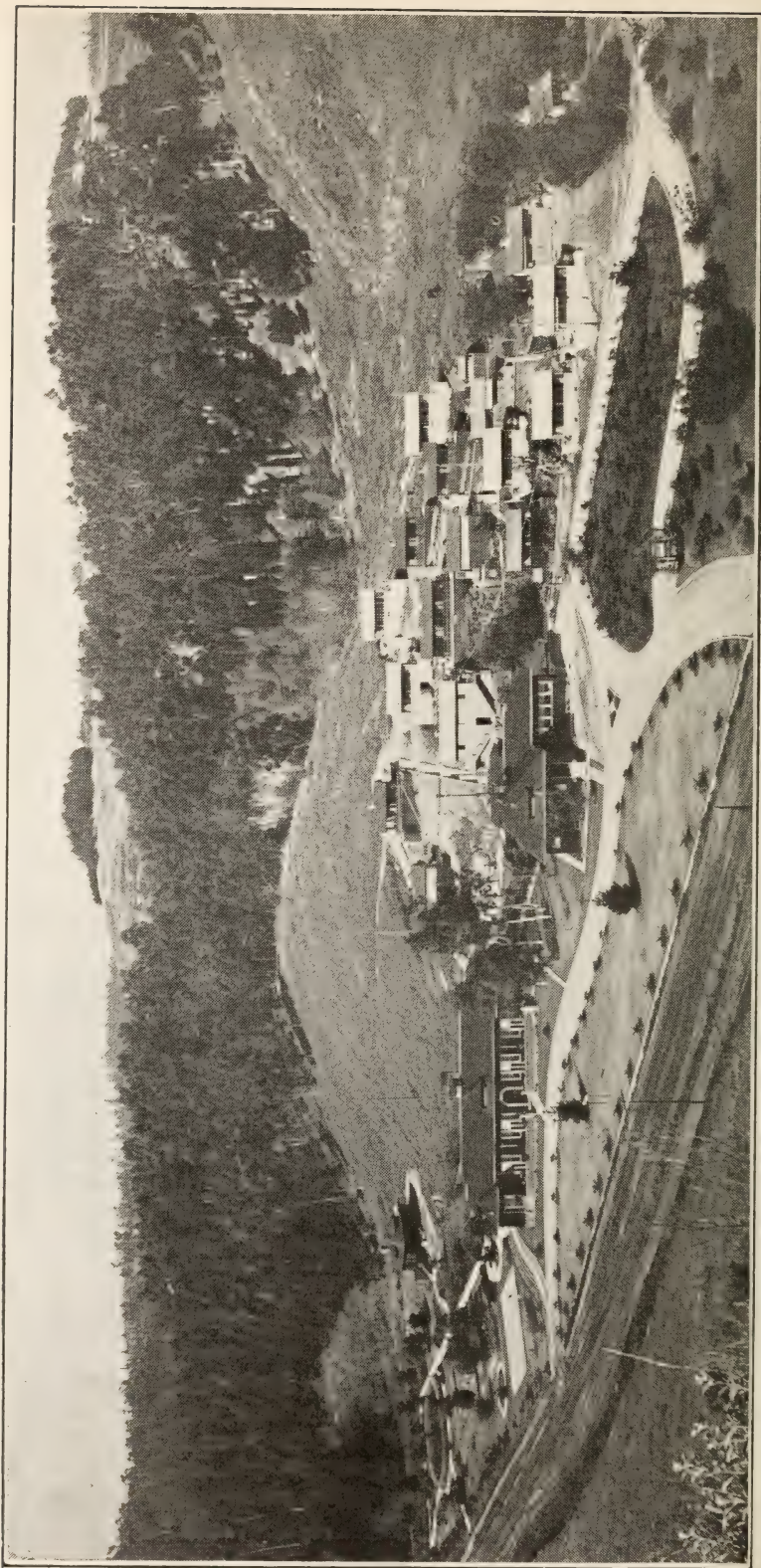
one considers the fact that this institution accepts patients from the laboring class only, or people who need the financial assistance found in a charitable sanatorium, it is evident why so many of our patients show well advanced disease. Most of them continue to work as long as they possibly can do so, for they have no means of support except their earnings, and do not give up until forced to stop by the progressing trouble, or some serious symptom.

Taking the entire number discharged, the average stay in the sanatorium was 114 days. Of the sixty-six there were seven patients who, for one reason or another, were under our care less than thirty days. These we do not consider in our results, as such a residence is far too short, and the seven we classify as "not treated." Excluding these, the average stay for the remaining number was 208 days. The longest stay was 846 days; one was 673; other periods reached 616, 560, 540, etc. Those who stay longest are the hopeless, advanced cases who are cared for until they die. It is occasionally necessary to take such patients, though the policy of those in control is against it.

The results of treatment may be shown roughly in the condition of the sixty-six patients when discharged:—

Apparently cured	2=3.0%
Disease arrested	8=12.1%
Improved	28=42.4%
Unimproved; disease progressive	16=24.2%
Not treated (less than 30 days' residence)	7=10.3%
Died in Sanatorium	5=7.6%

An effort is made to follow the course of patients after they leave our immediate care, and the record, in so far as we can ascertain, is as follows: Lost, 26; at work, 8; condition favor-



able, 12; condition unfavorable, 7; died, 7; suicide, 1.

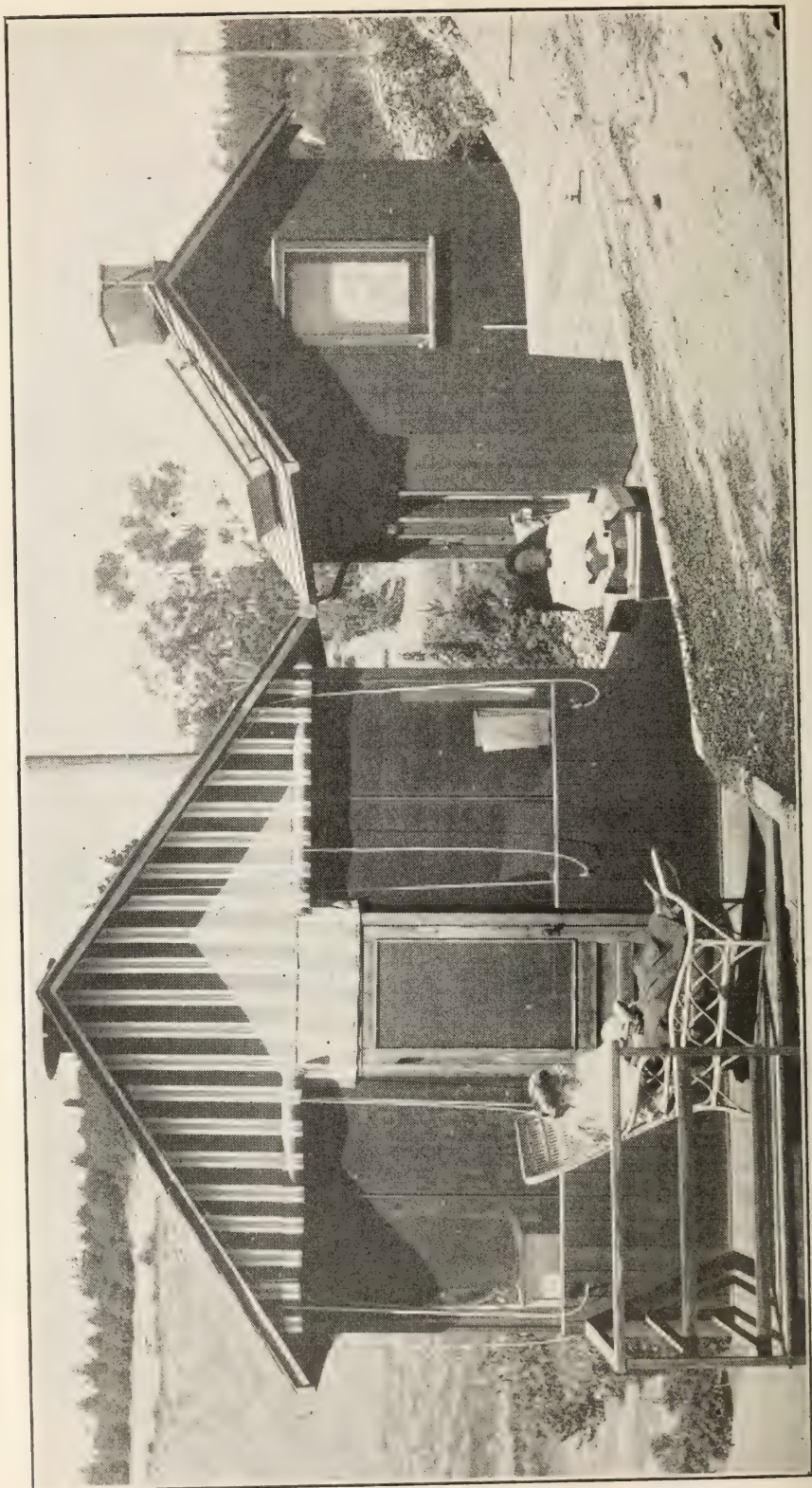
As to sex the males outnumbered the females nearly two to one, as there were 43 (65.1%) males and 23 (34.8%) females. In complexion they were described thus: blond, 18=27.2%; medium, 23=34.8%; brunette, 25=37.8%.

In the sixty-six individuals there were represented thirty-five occupations. Clerks head the list with 9; 8 were housewives, a group which includes practically all of the women who lived at home when taken sick; 5 were tailors; telegraph operators and carpenters, 3 each; laborers, machinists, bakers, seamstresses, waitresses, stenographers and salesmen, 2 each, and one from each of the following list: Architect, auctioneer, bell-boy, cook, collector, detective, engineer, fireman (locomotive), fruitman, gardener, gasmaker, housemaid, invalid, laundry-worker, locksmith, mail carrier, minister, newspaper man, nurse, printer, school teacher, stockman and theatrical manager. The occupation given is that at which the patient was working at the onset of the present disease.

Though we have not needed the aid of the various special tests in establishing the diagnosis in many instances, we have made the tests for the purpose of learning what we can of their value as accurate indications of tuberculous infection and as helps toward the prognosis. The Von Pirquet cutaneous tuberculin test was made upon 51 of the 66 patients. Of the 51, 43 or 84.3% gave positive reactions, at either the first or second trial, while 8 or 15.7% failed to respond definitely. The Moro percutaneous test was made upon 17 of the 66 patients. Of the 17, 13 or 76.4% gave positive reactions of more or less severity, while 4 or 23.6% failed to show any definite reaction. The Ophthalmo-tuberculin test was made upon 17 of the 66 patients. Of the 17, 9 or 52.9% gave positive reactions, none very

intense, while 8 or 47.1% utterly failed to respond. These results do not represent our present record, and are not entirely in accord with our present ideas of the relative values of these diagnostic aids. In general we have found the Von Pirquet test the most readily obtained, and have seen it fail only in those patients who were in extremis or when the tuberculin was at fault. It is too delicate for a safe clinical guide, though a repeated failure to respond would constitute good evidence of freedom from tuberculous infection. A positive reaction to the Moro percutaneous test has not the same objection in being too delicate, nor has a repeated failure to respond indicated freedom from tuberculosis, in these cases. We should consider a positive reaction to the ointment as very valuable evidence when symptoms of tuberculosis are present, though a failure to respond does not rule out the possibility of infection. The Ophthalmo-tuberculin test has been unsatisfactory in these cases, and we draw no conclusions from our experience with it. We have not used tuberculin hypodermatically as an aid in diagnosis, for, unfortunately, the nature of the trouble is obvious in nearly all cases, and we should consider tuberculin as contra-indicated in such circumstances. A more extended comparative study of our tests may be made in another place, when we shall consider a much larger number of examples. As for prognosis, we do not consider any of the above tests in any respect more accurate than the older clinical methods.

We may divide the complicating conditions seen into two classes, those of tuberculous origin and those not tuberculous in nature. In the first group we found laryngitis (2), perineal sinus (2), nephritis, meningitis, spondylitis, otitis media and pneumonia. Of the non-tuberculous affections noted the more important are mitral insufficiency,



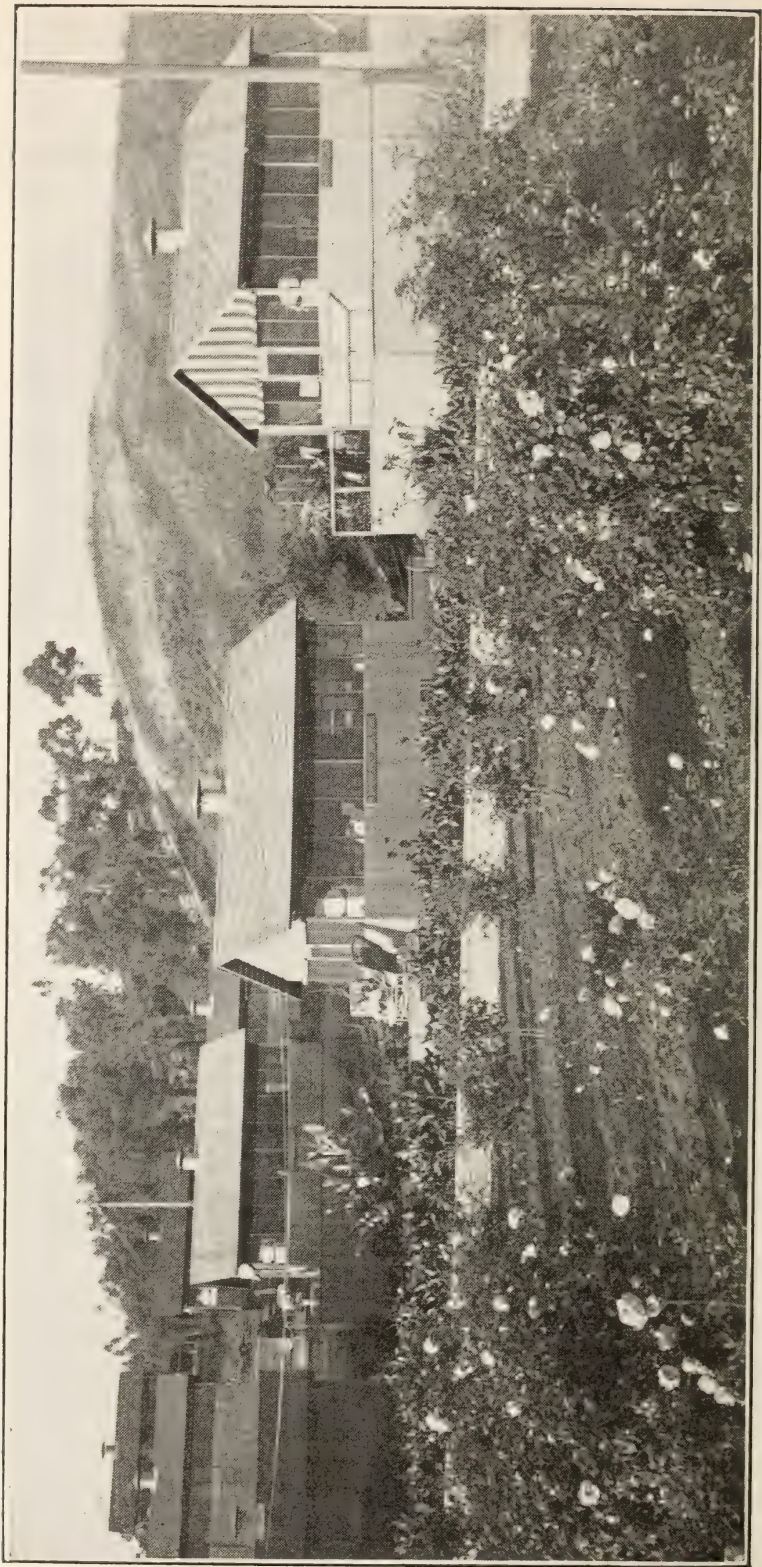
splenic tumor (leukaemia?), nephritis (3), inguinal hernia (3), catarrhal laryngitis (2), catarrhal enteritis, diabetes mellitus, empyema and asthma. We say all were non-tuberculous in which we were unable to demonstrate specific infection by tubercle bacilli. In this place we may consider the matter of pulmonary hemorrhage. A large proportion of our patients expectorate at one time or another sputum that is blood-stained or streaked, but very few have had hemorrhages. Six of the number discharged within the year had actual hemorrhages, however, in one case proving fatal.

To give any satisfactory detailed discussion of the question of fever in these cases would necessitate too long a paper. The average temperature (maximum) has been given for seven days on admission and for two days on discharge and can be found in the tables. The pulse can also be studied there and we need not discuss either phase here further than to say that the records conform closely to those one would expect to find.

All patients are weighed once a week. Forty-five of the sixty-six here reported weighed more when discharged than when admitted; that is to say 68.2% of all patients gained in weight. The greatest gain noted for any one individual was 48½ pounds. Eighteen (27.3%) lost in weight, the greatest individual loss being 13¾ pounds. One (1.5%) weighed the same, and two patients were weighed but once while in the sanatorium. One gain in weight in a man who died was due to a general anasarca resulting from an acute nephritis.

Acid-fast bacilli were demonstrated in the sputum of fifty-nine of the patients, or in 89.4% of all cases. One woman could not furnish a specimen of sputum, and sputum from six patients was repeatedly negative for tubercle bacilli.

Up until the past year the systematic use of tuberculin as an aid in the treatment of pulmonary tuberculosis had never been tried here. It has been used in a few instances during the year just ended, but not yet enough to leave any definite conclusion as to its value. In only three of the patients discharged was tuberculin given at all. One man had received but two doses, both very small, and so need not be considered. Another man received nine doses in a period of as many weeks, and offers no basis for any statement with regard to what was accomplished by the special therapy. There was one person, of the three, who might be mentioned. She was a young woman, who was looked upon as an unfavorable example from the date of her admission, and the course of her disease more than justified the grave prognosis given. She slowly but steadily lost weight and occasionally had a slight elevation of temperature. In consideration of the fact that her condition showed no tendency to improve upon the regular hygienic-dietetic form of treatment, it was thought advisable to give her a trial with the tuberculin. She was given a small dose once a week for fifteen weeks, the largest dose being 2/1000 miligr. and no elevation of temperature was noted which could be attributed to the tuberculin. Still the young woman continued to fail and during treatment she developed a very severe laryngitis, which Dr. Hill Hastings felt sure was a tuberculous involvement. We do not consider that this was really a case for a fair trial of tuberculin and base absolutely no conclusions upon it. We now have a number of patients who are taking tuberculin, some seeming to be helped by it, though showing no definite change not easily paralleled or surpassed by patients who get no tuberculin. We therefore feel unconvinced, either for or against the therapeutic use



SUMMARY. (After L. Brown) Modified.
66 Cases. Sept. 1, 1908 to Sept. 1, 1909

CLASS	Physical Signs Turban	T. R. found at any time	Hygienic-dietetic Treatment, Without Tuberculin. Patients who stayed over 31 Days. Average Residence 202.1 Days.										Hygienic-dietetic Treatment with Tuberculin. Patients who took Tuberculin more than 90 days. Average Residence 207 Days.									
			Cases		Appar. Cure	Arrested		Improved	Progressive	Died	Not staying for treatment	Cases		Appar. Cure	Arrested		Improved	Progressive	Died			
			No.	%	No.	%	No.	%	No.	%		No.	%	No.	%	No.	%	No.	%			
Incipient	I	X																				
Mod. Advanced	I	X	7	10.6	2	28.5	2	28.5	1	14.3	1	1.5										
Mod. Advanced	II	X	2	3																		
Mod. Advanced	III	O	33	50																		
Mod. Advanced	III	O	2	3																		
Far Advanced	III	X	13	19.6																		
TOTAL			58	87.8							7	10.6	1	1.5								

1. Pt. II Progr. Tbu. 2 doses, 14 das. X = positive, O = negative.

X = positive, O = negative.

1. Pt. II Progr. Tbu. 2 doses, 14 das.
2. Pt. II Impr. Tbu. 9 doses 63 das.

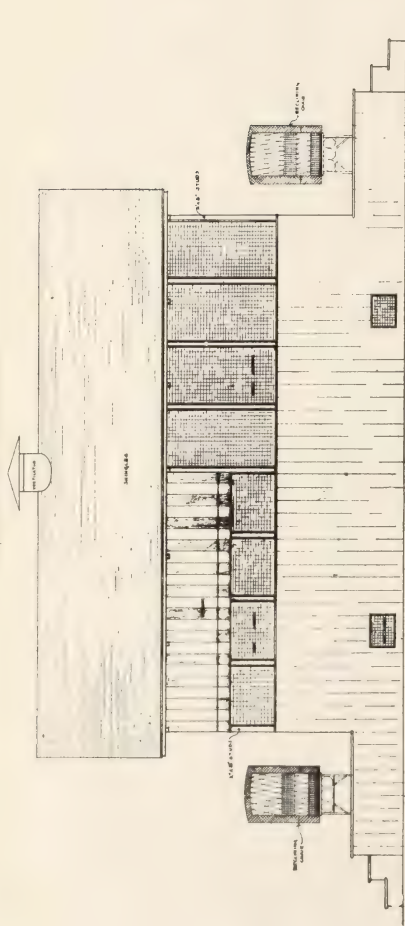
of the various preparations called tuberculin. Meanwhile, we shall use it in some form or another, in certain selected cases, especially in those patients who have improved to a certain point and seem unable to mend further without some special stimulus. It is felt that tuberculin may furnish the stimulus, in such cases.

As stated above there have been five deaths among the patients treated in the Barlow Sanatorium in the past year. Autopsy was performed upon four of the five. The fifth was a case of tuberculous meningitis. Diagnosis was assured by examination of the cerebro-spinal fluid and injection of a portion of the fluid into a rabbit, definite lesions and acid-fast bacilli being found in the animal.

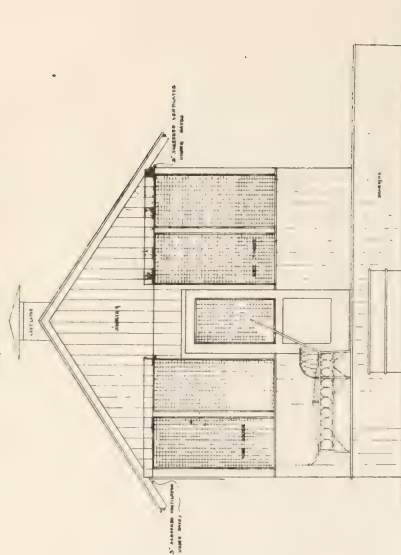
The fitting of a laboratory at the Sanatorium has been a step in advance. The apparatus is all in place now and work is under way. We hope to make as complete study of all patients as possible, toward which end a laboratory is indispensable.

In one important respect we feel encouraged. The patients treated at the Sanatorium in the past year show an improvement over those previously treated in that we are getting earlier stages of the disease than formerly were sent in. The consequence is that more apparent cures are accomplished, and the state is saved a larger number of useful citizens. In so far as this change in conditions has occurred it is most gratifying, but there is yet ample room for further advance. Earlier treatment means shorter treatment and better results, as well as effectual control of the disease throughout the community. Shorter hospital residence for the individual will result in caring for an increasingly large number of those who need care. The moral is apparent. The working-man must be taught that it is more economical to give up his labor when he is still curable than to work until he is compelled to stop

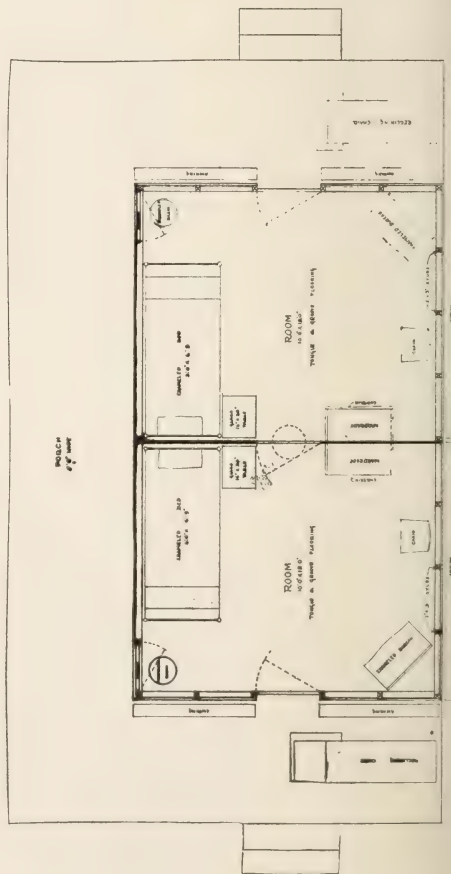
SOUTH SIDE VIEW OF TWO ROOM COTTAGE
LENGTH 36'-0"
LENGTH OVER ALL 50'-0" - EACH ROOM 16'-0"



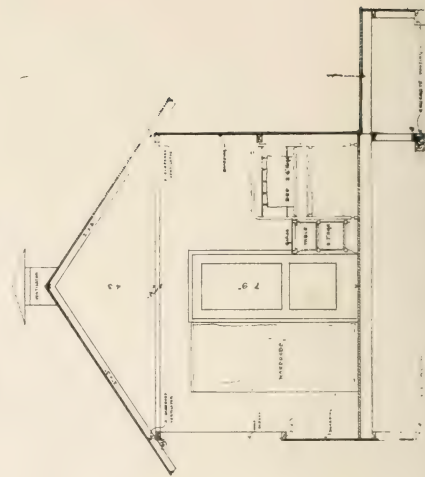
EAST AND WEST ENTRANCE VIEW OF COTTAGE
LENGTH 16'-0"
LENGTH OVER ALL 50'-0"



FLOOR PLAN OF TWO ROOM COTTAGE
EACH ROOM 16'-0" x 12'-0"



INTERIOR VIEW OF EACH ROOM



and then spend the last years of his life as an invalid. To isolate any considerable number of advanced cases of an infectious disease is a most valuable means of helping to eradicate the affection by protecting those who are yet unaffected, but it is even more important, from an economic standpoint, to recognize and treat the early and curable instances of such disease, in order to preserve the life of the subject and prevent the long term of invalidism that is still the rule. When the incipient stages are treated there will be possible a more reduced cost per individual, and a corresponding reduction in the expense of running charitable Sanatoria.

The tabulated record of the sixty-six patients discharged during the year is here reprinted from the Sixth Annual Report of the Barlow Sanatorium. The tables are self-explanatory and present more minute data than the above discussion is able to include, and will therefore be of especial value to those who are particularly interested in the Sanatorium treatment of pulmonary tuberculosis.

Explanation of terms used in classifications:

ON ADMISSION.

Incipient:—Slight or no constitutional symptoms (including particularly gastric or intestinal disturbance or rapid loss of weight). Slight or no elevation of temperature or acceleration of pulse at any time during the twenty-four hours. Expectoration usually small in amount or absent. Tubercle bacilli may be present or absent. Slight infiltration limited to the apex of one or both lungs or a small part of one lobe.

Moderately Advanced:—No marked impairment of function, either local or constitutional. Localized consolidation moderate in extent with little or no evidence of cavity formation; or infiltration more extensive than under incipient. No serious complication.

Far Advanced:—Marked impairment of function, local and constitutional. Marked consolidation of an entire lobe. Or disseminated areas of beginning cavity formation. Or serious complications.

ON DISCHARGE.

Apparently Cured:—All constitutional symptoms and expectoration with bacilli absent for a period of three months; the physical signs to be those of a healed lesion.

Arrested:—Absence of all constitutional symptoms; expectoration and bacilli may or may not be present; physical signs stationary or retrogressive; the foregoing conditions to have existed for at least two months.

Improved:—Constitutional symptoms lessened or entirely absent; physical signs improved or unchanged; cough and expectoration with bacilli usually present.

Unimproved or Progressive:—All essential symptoms and signs unabated or increased.

Died:—

(Tuberculosis Nomenclature and Classification. A Committee Report Approved by the American Sanatorium Association. The Journal of the American Medical Association. Sept. 25, 1909. Vol. LIII, pp. 1933-1938.)

THE CONQUEST OF THE VENEREAL DISEASES.

Havelock Ellis, of London, England, finds the solution of the problem of fighting venereal diseases successfully not in police control, but in public education. The prevalence and effects of venereal diseases must be told freely, official information must be secured, and facilities established for free treatment. It must be obligatory to receive treatment and penalties must be enacted for conveying infection. Youths must be properly instructed in sexual hygiene and the public generally educated in this direction.—*Medical Record*.

TWO APPARENTLY NEW PHYSICAL SIGNS, WHEREBY NORMAL ORGANS MAY BE OUTLINED AND DISEASED CONDITIONS BE DIAGNOSTICATED, PARTICULARLY WITHIN THE CHEST, BY MEANS OF PALPATION.

BY F. M. POTTENGER, A.M., M.D., LL.D., MONROVIA, CALIFORNIA.

During the past year I have described two apparently new physical signs, the presence of which is determined by palpation.

This fact has caused confusion in the minds of some to whom I have described them; and, in order to show the difference between them and prevent further confusion, I deem it best to describe the two signs accurately at the beginning of this paper before proceeding to their discussion.

These two signs are:

I. **MUSCLE RIGIDITY.**^{1, 2, 3, 4.} A feeling of resistance noticed on palpation of the muscles overlying inflammatory conditions of the pleura and pulmonary parenchyma, due to,

1. Acute muscle spasm when the inflammatory process is active, and

2. Pathological change in the muscle when the inflammation is chronic.

II. Different degrees of resistance on "LIGHT TOUCH PALPATION" noted.⁵

1. Over solid organs such as the heart and liver when compared with air-containing organs such as the lungs or hollow organs such as the intestines, and

2. Over foci of disease in the pleura and pulmonary parenchyma when compared with that over normal organs due either to the disease process itself, or to the change in the muscle as described above, or to both.

From this statement of the two signs it can be seen that while they are both elicited by palpation they are entirely different. *Muscle rigidity* is dependent entirely upon a pathological entity, while

the difference in tissue resistance noted on *light touch palpation* is dependent upon the fact that different sensations are conveyed to the fingers when palpating the surface of the body overlying tissues of different density.

This statement shows clearly that the two signs are entirely different both in their causation and determination.

I shall now proceed to discuss them in the belief that a thorough appreciation of them will be of importance to clinical medicine.

My experience with *muscle rigidity* has been for the most part confined to the examination of patients suffering from pulmonary tuberculosis and its complications; but, as such, it has afforded me a wide clinical experience in the various affections of the chest. I have found muscle rigidity present in all instances where there was evidence of disease of the pleura or pulmonary parenchyma, lung abscess, high grade emphysema, pleurisy (acute with and without effusion, and chronic with thickening of the pleura) and empyema.

The cause of the muscle spasm and the later pathologically changed muscle is most probably a nerve reflex in which the impulse travels from the inflammatory area in the thorax through the sympathetic filaments to the cord where it is transmitted to the motor cells adjacent, thence out to the muscle. The inflammatory condition being constant and of long duration, the stimulant is constant and the spasm is tonic in character. As a result of this constant

*Read before the Los Angeles County Medical Association, Los Angeles, Cal., November 5, 1909.

stimulation the muscle is unable to preserve its integrity and undergoes pathological change.

If the above is the real explanation of its causation muscle spasm should give us a valuable differential diagnostic point in appendicitis, for we should have a spasm in the same muscles or portion of muscles no matter where the inflamed organ is situated in the abdominal cavity.

I have designated this sign as *muscle rigidity* in order to comprise both the acute spasm and the chronic change.

Both the superficial and deep muscles are affected; and the interesting as well as important feature of the change is the fact that it seems to be confined very accurately to the muscles covering the portion of the pleura or lung affected.

The great value of this sign is dependent upon the fact that the muscle change is apparently co-extensive with the intrathoracic disease, coupled also with the fact that tuberculosis usually begins at the apex of the lung where muscle spasm shows itself best and is easiest of detection. I know of no question of equal magnitude that is put up to the physician to decide as often as whether or not active tuberculosis exists in the apex of a given lung; and I can further say that there are few questions that have to be decided by the physician with less data upon which to base his decision. Therefore, muscle change (acute muscle spasm in early active cases) is welcome, because theoretically, it should be present in all early active lesions; and, practically, I believe it will be so found for I have found it in all that I have so far examined. After the disease assumes a chronic and less active form the spasm is not so evident, but the pathological change is then present and still affords a valuable sign.

Clinically, the cases showing muscle rigidity may be divided into four classes:

1. Those having primary acute lesions. In these the spasm is greatest because the muscles being normal they are able to respond to the stimulus with the greatest degree of contraction.

2. Those having chronic lesions of considerable extent. In these the rigidity is well-marked and the muscles present a doughy feeling to the palpating finger owing to the fact that they have lost their normal elasticity.

3. Those having chronic lesions of considerable extent which have again become the seat of an active process. Here the chronically changed muscles attempt to respond to the new stimulus and present a more or less successful attempt at spasm on the top of an old process.

4. Those having a small focus which is entirely quiescent or the seat of only slight activity. Here the change is so slight that it can easily be overlooked.

Muscle rigidity is best detected by examining the muscles of the two sides systematically, and comparing not only the same group of muscles of the two sides, but different groups of muscles on the same side. When the muscles are in spasm or the lesion is extensive, the change will be detected quite readily after one has once fully understood the idea. The muscles should be examined carefully without making too heavy pressure.

LIGHT TOUCH PALPATION. While working out the physical sign of *muscle rigidity* in diseases of the chest, as described in the early part of this paper, I was impressed with the fact that there was a distinctly different sensation conveyed to the fingers when palpating over solid organs, such as the heart and liver, from that conveyed by palpating over organs of less density, such as the lung and intestines. By

careful observation I found that this difference was easy of detection; and, to my surprise, I found that it could be determined by a very gentle touch.

After examining many patients I gradually evolved what seemed to me to be a practical method of determining this difference in resistance and in order to make the name suggest the nature of the method, I have called it "Light Touch Palpation."⁴

Light touch palpation is not based on any new principle, but one which has been known to the medical profession as long as palpation and percussion have been in use.

Much of the data derived from palpation is clearly dependent upon the fact that tissues of different density, when palpated, produce sensations which are distinguishable by our sense of touch. Percussion, whether we depend upon sound or resistance, depends upon the fact that tissues of different density when percussed produce different sounds or different degrees of resistance; and data derived by the sensation conveyed to either the finger used as pleximeter or plessor or that derived by such methods as Ebstein's Touch Percussion are clearly dependent upon the same principle as palpation. By these methods of percussion we attempt to feel the difference in density of the tissues by strokes. By percussion we have attempted to feel or examine deeper than seemed possible by palpation.

The liver, spleen and other abdominal organs have always been examined by palpation, but, as a rule, the method has been that of at least fairly deep pressure. I have only met a few men who have used a method which in any degree approached the one which I am describing for lightness of touch. In the chest, the different sensations noted over tissues of different density have also been noted by various observers, but so far as I know of, no

method has been given to the profession which has offered them a practical way of outlining the deeper organs such as the heart and liver by palpation.

The fact that we can outline the heart and liver by gentle touch shows us that our tactile sense reaches much deeper than we have previously believed. While *tactus eruditus* means a great deal and helps one to do this work better, yet I feel sure, after showing this method to many practitioners of medicine, both in Europe and America, and finding that it was readily appreciated by them, almost without exception, that it can be made a very valuable method for daily routine work.

The most delicate touch must be used for best results. Firm pressure blunts the tactile sense and interferes with our keenest perceptions. If those who try this method will bear in mind that it is accurately described by the name *light touch palpation*, and that light touch means a touch so delicate as to scarcely indent the skin, I am sure that success will follow the trial.

In attempting to palpate such deep organs as the liver, spleen and heart certain precautions must be observed.

While it is possible to note the difference is resistance between tissues of slight and great density, even through the ribs, yet it is necessary to confine our palpation to either the intercostal spaces or the ribs and not pass from one to the other. If one crosses from the intercostal space to the rib, as one will do if care is not used, when outlining the left border of the heart, especially where the ribs are well covered in an individual with considerable subcutaneous tissue, a resistance is at once noted when the rib is reached which may be easily mistaken for the heart border.

I have found the best method of procedure in endeavoring to outline the

deeper organs by *light touch palpation* to be as follows:

1. Always palpate wholly, either in the intercostal spaces or over the ribs. This can be applied to the liver and spleen as well as the heart because of the oblique direction of the ribs.

2. Begin palpating beyond the border of the organ and approach it slowly. When the border is reached an increased resistance is at once noted, the degree varying in different chests.

3. The palpating fingers must not be moved too rapidly, or confusion will result. Sufficient time must be allowed to concentrate the mind on the sensation produced at each touch. Concentration is very important, especially when the change is slight, as would be noted in a heart or liver border covered over by emphysematous lung in a patient with thick chest walls.

Simplicity is not sufficient to warrant the use of a new method; it must be, at least, fairly accurate. I have controlled the accuracy of *light touch palpation*, in the outlining of the heart, by the orthodiagraph, and am surprised at the result. Out of fifteen patients with normal chests both borders were accurate nine times (60%), the right was accurate twelve times (80%) and the left twelve times (80%). In no instance was the error over $1\frac{1}{2}$ centimeters and in most instances it was less than one centimeter. I am sure that this degree of accuracy is not exceeded by our usual methods of examination.

In examining the liver and the spleen, the precaution should be taken to have the patient hold his breath or breathe quietly.

Not only can *light touch palpation* be used in outlining normal organs, but it is of inestimable value in detecting certain pathological conditions.

Muscle rigidity which has long been known to exist in diseases of the abdominal viscera and which I have recently shown to be present also in

diseases of the pleura and lungs can be detected very easily by *light touch palpation*.

The acute muscle spasms accompanying active inflammations in the chest and the pathologically changed muscles accompanying chronic inflammations can both be detected in this manner. From my experience with this method of examination I am also convinced that the physician can by the use of this method obtain valuable diagnostic hints in diseases affecting the abdominal viscera, as well as those of the chest.

Peritoneal and pleural effusions are quite easily detected by *light touch palpation*, and in cases of lobar pneumonia which I have examined the division between the affected and unaffected lobe could be determined without difficulty. It seems so plain that we can scarcely understand why this method has not been used before.

In order to obtain an accurate idea of what is to be detected by *light touch palpation* I would suggest that the examiner touch very lightly with the pulp of his fingers, barely indenting the skin, over the fourth intercostal space to the left of the sternum and compare the resistance to the finger with that in the same intercostal space in the nipple line. This is comparing the heart in the area of absolute dulness with lung tissue. The difference is very apparent. Or, compare the resistance over the liver with that over lung tissue, or that over a pneumonia or pleural effusion with that over lung tissue. The difference is at once so apparent that it cannot fail to be detected. After the idea has been once grasped I believe a little patience and practice will soon give the examiner a fairly accurate means of determining the outlines of normal organs when they are situated against or near the body surface, providing they differ in density from those surrounding them, and, of determining pathological

conditions when they result in change of density in the organ or part of the organ affected.

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DIAGNOSIS OF GASTRIC AND DUODENAL ULCER.

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In the diagnosis of any disease which has as a basis a known pathology, the etiology, history and the certain cardinal symptoms of that disease must be clearly in our minds before we can attempt to separate such a disease from other conditions having perhaps one or more identical symptoms. In the diagnosis of abdominal conditions this is especially true. Each separate symptom of peptic ulcer has its counterpart in some other disease within or without the abdomen, so that a true diagnosis can only be made by viewing the picture as a whole.

Before going farther it is to be understood that to facilitate discussion of diagnosis and differential diagnosis in the body of this paper, peptic ulcer, (duodenal and gastric), will be considered as having identical symptoms, and only those symptoms common to both will be mentioned. At the end of the paper it will be profitable to see whether it is possible to differentiate these two.

Etiology.—On account of the lack of our knowledge and the difference of opinion of men best able to judge as to the factors causing peptic ulcers, little can be gained in diagnosis by keeping in mind the many possible causes that have been given. Age alone has value.

Age.—The limits are wide. From three days to seventy-three years. Average thirty-eight years, (Moynihan). Preponderance of cases however appear between the twentieth and fortieth years.

Natural History.—

The anamnesis in peptic ulcer as in all other stomach conditions is most important. Principal points usually related are as follows:

Dyspeptic attacks coming on from time to time with periods of comparative relief. This history may run over months, sometimes years, ten, twenty, thirty years. Attacks become more frequent as disease progresses.

During the Attacks.

Pain of boring or burning character, localized in the epigastrium, coming on at a definite time after meals.

Pain is relieved by vomiting, alkalies or natural emptying of stomach. Pain is less on a restricted diet.

Flatulence, belching of gas, pyrosis are present during attacks and continue in a modified form between attacks.

Vomiting—at a definite time after eating, usually at height of pain. About one-third of patients give this history. —(Fenwick).

Blood either vomited or in the stools, found in one-half of the cases.

Tenderness and hyperesthesia in a def-

inite area in the epigastrium.

Appetite generally good, but modified by the patient's knowledge of the results of eating.

Constipation—constant—probably as a result of choice of soft, easily digestible food.

Nutrition rises and falls with quiescence and attacks. When the attacks are especially frequent loss of weight is a prominent symptom.

Objective Symptoms.—

Rigidity of right border of rectus during attacks.

Dilatation of stomach—due to pylorospasm at times present.

Tumor occasionally palpable when extensive adhesions have formed.

Jaundice, when ulcer is low down in duodenum, or duodenal catarrh severe, *Laboratory Findings.*—

Stomach.—Increase of Hcl. free and combined—usually.

Good motility and normal or decreased mucus.

Occult blood in stomach contents or feces, probably always present in some period of disease. Examination of blood and urine of no value in the diagnosis.

Aids to diagnosis have been suggested by numerous investigators. Some that might be mentioned are:

The use of the X-Ray after ingestion of an emulsion of Bismuth, as suggested and used by Hemmeter. His results have been unique, as the difficulty of differentiating ulcer areas by increased deposits of Bismuth at these points may well be imagined.

Chevalier Jackson's pictures and description of ulcers as seen by the gastroscope are alluring to the physician but hardly to the patient. The element of skill is too great to make this means generally useful.

Bominger method of first instilling water into the empty stomach, which should give no pain afterwards decinormal Hcl. which, if ulcer is present,

gives immediate pain—might be tried in doubtful cases.

With this resume of peptic ulcer symptomatology in our minds, differential diagnosis may be taken up.

First we shall consider diseases having epigastric pain as a symptom.

Functional diseases of the stomach, with the exception of gastralgia do not have pain, feeling of heaviness, distress, fullness, dragging, distension but not true pain, so that upon this basis they may be disregarded.

A. Diseases causing pain and tenderness over the epigastrium from pressure or inflammation of the intercostal nerves supplying this region.

Pleurisy—Aneurism (thoracic), caries of the ribs and spine, spondylitis, Herpes Zoster and injuries.

Constancy of pain, absence of relation of pain to food, and careful physical examination will readily differentiate these from ulcer.

Diseases of organs other than the stomach.

Heart.—Angina pectoris may seem to give stomach pain, but the typical radiation to I, shoulder and arm the presence of arteriosclerosis, the attacks being independent of usual meals—but coming on after overindulgence, mental or physical excitement, and absence of tenderness makes diagnosis positive.

Intestines.—Colic, relieved by movement of bowels, pain lacks character, crampy, comes in waves and leaves a general not localized tenderness.

Lead Colic.—The blue line on the gums, obstinate constipation, crampy pains, wrist drop and history of occupation or exposure leaves no room for question.

Appendicitis.—Unless the appendix be in an abnormal position, there can be no question in differentiation. This, however, does not hold good in cases of perforation of gastric ulcer as in many cases the pain is first localized in the region of the appendix and rup-

tured appendix has been diagnosed when it was a case of perforated gastric ulcer. This differentiation is especially difficult in those cases of gastric ulcer when perforation is the first symptom. History alone is of value here.

Nervous System.—

Locomotor Ataxia.—Gastric crises with vomiting and sometimes vomiting of blood may at first glance bring up the picture of ulcer, but the history of the case, absence of knee jerks, the presence of Argyll-Robertson pupils, Romberg's sign and the absence of relation of pain to food makes the disease present, clear.

Diseases of the Kidneys.

Movable Kidney.—Diet's crises may in a way simulate the pain of ulcer—but the finding of a shifting kidney, the region of the pain, fever, collapse, and absence of stomach signs clears the problem.

Nephritis.—Gastralgia often accompanies other uremic symptoms, and with the vomiting present simulates ulcer with pylorospasm. Urinary examination, appearance of the eye grounds, oedema and the history make the way plain.

Diseases of the Gall-Bladder.

Cholecystitis with or without stones is the most difficult disease at times to differentiate from ulcer. This has been proven by our best diagnosticians and surgeons. Patients being operated upon for gall-stones and ulcer being found and vice-versa.

Generally cholecystitis can be diagnosed by,—history of infections, typhoid or typhoid group.

Pain, midline radiating to right and under right shoulder blade.

Tenderness over the gall-bladder, easily elicited by Naunyn's manœuvre of pressure over the gall-bladder when the patient takes a deep breath.

Pain not usually brought on by taking of food, coming at any hour of day

or night and stopping as suddenly as it comes.

Juandice if present is of diagnostic importance in favor of gall-bladder and duct disease, its absence no bearing either way, as jaundice is present only in about fifteen to twenty per cent. of all gall-bladder cases.

No history of vomiting of blood or finding of blood occult or visible in stools or stomach contents.

Diseases of the Stomach.

Gastralgia.—This disease presents a history of hysteria, neuralgias, uterine disease or other neuroses.

Pain is paroxysmal, not directly excited by food, nor related to or regularly affected by its ingestion. Vomiting or alkalis do not necessarily relieve the pain. Pressure often relieves it. There are no tender points. Haematemesis is absent, as also occult blood.

Carcinoma.—Unless carcinoma has developed upon an ulcer base, diagnosis at the stage new growth of the stomach is usually seen is easy.

The age of the patient usually over 50 rapid development of desepptic symptoms, loss of weight, strength, anemia, anorexia, beginning first with a distaste for meat, constant gnawing pain, with the later symptoms of vomiting, vomiting of coffee ground material, presence of rapidly growing tumor, metastases in other organs, the enlarged firm gland above the left clavicle. With stomach findings of absence or greatly diminished Hcl., presence of lactic acid and the products of stasis, sarcinae, Oppler-Boas bacilli, etc., makes a typical picture. The difficulty of diagnosis, however, lies in the cases that give the typical history of ulcer in the past, stomach findings show free and combined Hcl., in good amounts, and only the general symptoms, loss of weight, strength, anemia, and distaste for food are present. Exploratory incision, early, is the best and most conservative method for diagnosis.

Diseases with Haematemesis as a Symptom.—

Some of these have already been mentioned under our first heading so it is not necessary to take them up here.

Diseases of the Heart.—

Myocarditis and chronic endocarditis with loss of compensation, vomiting and hemorrhage from the stomach may occur in these conditions, but the evidence of stasis in other organs, the absence of pain with or without food and the heart findings are all that is necessary.

Diseases of the Liver.—

Cirrhosis.—Rupture of varicose veins of the oesophagus often fill the stomach with blood, causing profuse haematemesis. The history of syphilis, the presence of dilated veins over the abdomen, the firmness of the liver with or without contraction, hemorrhoids, the absence of pain after taking of food, absence of tenderness are all for cirrhosis.

Diseases With Vomiting.—

Vicarious menstruation, vomiting of swallowed blood, and haematemesis after continued vomiting from rupture of a small vessel, have only this symptom in common and so can be dismissed.

As was mentioned before, the first symptom of ulcer may be perforation, beginning would make differentiation and so it may be hemorrhage. Such a more difficult from the above diseases with hemorrhage and no pain. Physical examination would clear the picture in every case.

Those that perhaps might in a way simulate the vomiting of peptic ulcer are.—

Nervous Vomiting—Cyclic.—

The periodicity of the attacks with freedom from symptoms in the interval, the vomiting of blood from retching, the tenderness over the epigastrium, the emaciation, and usual high acidity, make the picture somewhat the same. The history of a neurotic family, absence of

pain from food, the continued vomiting without regard to food, the absolute absence of dyspeptic symptoms between the attacks, shows it to be a neurosis. Vomiting of pregnancy. Time and a careful examination will clear the way for a diagnosis in this condition.

The above has all been written of typical peptic ulcer, without complications.

Cicatrization, perigastritis with adhesions to other organs, malignant degeneration, pyloric spasm or stenosis, perforation all change the picture so that the symptoms here related may not in any way be characteristic of the altered condition. Each one of these complications deserves protracted discussion, so they shall not be taken up here.

Briefly we have discussed the differentiation of peptic ulcer from other diseases within and without the stomach, so at this point it is well to take up the point mentioned at the beginning of this paper, the possibility of differentiating gastric ulcer from duodenal ulcer.

Can they be differentiated? This is certainly a mooted point. To quote.

"Ulcer of the duodenum causes precisely the same symptoms as ulcer of the pylorus."—Cohnheim.

"It is impossible in most cases to differentiate gastric and duodenal ulcer."—Leube.

"In the great majority of cases they (duodenal and gastric ulcer) can not be separated, during life, as the symptoms present are identical."—Osler.

"The accurate differentiation between duodenal ulcers and ulcers of the pyloric end of the stomach offers great difficulties. When a physician follows his patients from the examining room to the operating table he is forced to the conclusion that to locate a peptic ulcer is not only difficult but often impossible."—Christopher Graham.

"A differential diagnosis between gastric and duodenal ulcer can usually be made."—Mayo.

"It was permitted to the surgeon to discover that the clinical history of duodenal ulcer was in many cases very easily discriminated from that due to the other diseases I have named" (gallstones and gastric ulcer).—Moynihan.

"The symptoms of the one (gastric) and of the other (duodenal) differ, however, materially, for while gastric ulcer is usually diagnosed early, the ambiguous character of duodenal ulcer often makes its diagnosis difficult."—Mayo Robson.

These opinions have been read to you for a purpose as they represent the opinions of the foremost men of two classes—one class that base their conclusions on the "Pathology of the dead," the other on the "Pathology of the living."

The surgeons certainly give us more encouragement for differentiation than the internist and we may hope that in the next few years with the accumulation of cases, the symptom-complex of duodenal ulcer will be made as clear as that of gall-bladder disease is today.

From the articles of Moynihan, Mayo, Mayo Robson and Graham we will try to pick out the points that help us to separate duodenal from gastric ulcer.

Duodenal Ulcer.—

History of attacks with periods of freedom from pain may cover years ten, twenty or thirty. Diagnosis late.

Gastric ulcer—diagnosis possible early from more definite symptoms.

Age—Same in both.

Sex—Duodenal ulcer more common in males—77%.—Mayo.

Frequency—Duodenal and gastric ulcer probably about equal—Mayo's last statistics 61.7% duodenal.

Symptoms.—

Pain in duodenal ulcer—"Hunger pain," comes three to four hours after eating, relieved by food and the period

of relief is longer after a heavy meal. Night pain characteristic.

Radiation of pain not so constant as in gastric ulcer, if present usually radiates to right usually to loin, but may go upward to back.

Tenderness.—Usually located a little above and slightly to right of umbilicus, an area of hyperaesthesia.—MacKenzie. In pyloric ulcer the skin will be tender over an area in the median line or a little to the left about midway between the ensiform and umbilicus.

Vomiting is an infrequent symptom in duodenal ulcer.—Moynihan.

Hyperchlorhydria, common to both gastric and duodenal ulcer.

Jaundice, if present favors duodenal ulcer.

Hemorrhage, if present usually passes downward in duodenal ulcer, rather than upward. Occult blood in stools and not in stomach contents favors duodenal ulcer.

Flatulence, more marked in duodenal ulcer.

Nutrition, more likely to be good in duodenal than gastric ulcer.

Before closing this paper I wish to make clear a point which has probably come up in your minds, and that was—why did not functional hyperchlorhydria appear in the differentiation? As was stated in the beginning functional diseases do not give pain, if they do they are not functional. On this point let me quote again.—"The term 'hyperchlorhydria dyspepsia' is one of the names for the surgical condition duodenal ulcer." "The acid dyspepsias which are supposed to be functional are in truth generally cases of ulcer in the duodenum."—Moynihan.

It is stated that if children exposed to scarlet fever be kept on an exclusive milk diet, they are not likely to contract that disease. This explains why nursing children are so seldom attacked.

ETIOLOGY OF THE VENEREAL PLAGUES AND SOME
NEW METHODS OF PREVENTION.*

BY W. L. HOLT, M.D., BANNING, CALIFORNIA.

I am much obliged to the secretary and president of this association for this opportunity of speaking to an audience which is seriously desirous of preventing disease, on this subject which is perhaps the most important one in the whole realm of preventive medicine. It is also the most difficult and delicate subject in medicine, and one cannot go into it thoroughly and honestly without making statements concerning social, moral and political matters which are sure to meet opposition from a large number of people. Believing, however, that it is of prime importance to intellectual and moral progress that those who have a well-grounded opinion on such matters should not hesitate to express it from fear of criticism or misunderstanding, I shall not mince matters, and ask my hearers not to be offended if I run against some of their prejudices or opinions.

The venereal plagues are essentially social diseases, a disease of society, and it seems to me that we should recognize the fact that their causes are peculiarly social, and when we have found these causes we should seek to remove them and also put our patient, Society, under the most favorable conditions possible for recovery. Just as hygienists seek to prevent typhoid fever by breaking the chain of antecedent conditions which leads up to an outbreak of typhoid, so we should try to prevent the venereal plagues by breaking the chain of events and conditions which leads up to infection with syphilis and gonorrhea. This chain is sometimes quite long, but may always be traced back to prostitution. Not only prosti-

tutes, regular or licensed and clandestine, but also their patrons, the prostitutes, should be included in the term Prostitution, for the men are reservoirs and transmitters of these diseases just as much as the women. I shall devote the paper to an analysis of the social and economic factors that make the Social Evil and to the remedies that I believe to be most effective against it.

Modern prostitution bears the stamp of modern social and industrial condition. The host of unmarried men represent the male factor; the hosts of young women and girls in our factories and stores and offices are the feminine factor. There is also a very small number of so-called "natural prostitutes," a type of congenital sexual perverts described by Havelock Ellis and commonly found in homes for the idiotic and feeble-minded. Such girls have no control over their animal-like sexual instinct; they are moral imbeciles, and should be confined in institutions for such unfortunates.

There is a much larger class of young women, merging into the former class, who cannot be denoted and confined as moral imbeciles, but yet have such weak moral natures that unless they receive good early moral training and are not much exposed to temptation they will be seduced and become prostitutes.

Only such women can with any truth be said voluntarily to engage in prostitution; and even they do not really seek to sell their bodies for a living, but seek sex-intercourse, a man's attention and society and luxuries he is willing to provide without the sacrifices, the danger, and the responsibili-

*Read at the annual meeting of the Southern California Health Association, Los Angeles, December 1, 1909.

ties of a family. Many of these women would have become faithful wives if a good congenial man had offered them marriage at the right time. It is one of the greatest cruelties of modern society that thousands of women, especially of the working class in the Eastern states, where there is a surplus of women, never have an opportunity to marry and fulfill the noble function of motherhood, which to every true woman is the greatest thing in life. Let us not forget that the maternal instinct is still nearly universal, and that in woman as in the animals it is usually even stronger than the mighty instinct of self-preservation. Then we shall not make the stupid mistake of supposing that any sane young woman would knowingly prefer to become a slave to brutal men's passions rather than to enjoy the love and care of a good husband and the divine joys of motherhood. To do so would be to return to the discarded dogma of "original sin" and the inborn and absolute depravity of man, and to shut one's eyes to the truth that science has discovered about human nature.

A comprehensive investigation was made among the Parisian prostitutes by the specialist Parent-Duchatelet for the special object of discovering the causes that had induced them to enter the business. Five thousand were interviewed with the following results tabulated:

Induced by want and misery.....	1440
Had no parents or means of livelihood; obliged to sell themselves or starve.....	1250
Necessary to support poor and aged parents	80
Deserted by lovers; i. e. seduced by civilians.....	1400
Seduced by officers and soldiers	400
Deserted during pregnancy....	200
Total number forced by poverty and crime.....	4770
or 95.4 per cent.	

This leaves only 230 out of the 5000, or 4.6 per cent. who have "voluntarily entered prostitution."

Unfortunately no such scientific study of the causes of prostitution has been made in the United States so far as I know. Several investigations of the Social Evil have been made, however, the best known of which was made in New York City in 1900 to 1902 by The Committee of Fifteen. Mr. Alvin S. Johnson of this committee classified the sources of prostitutes as follows:

"First, a large class of women or girls, who, having been brought up in the very atmosphere of ignorance, squalor and immorality, in our slums, may be said to have been trained for prostitution from earliest childhood. Such children grow up without any moral training; they cannot even learn what modesty and purity are; in short, they are little better than animals and fall easy victims to their vicious male associates while they are only half matured.

"Second, the large class of women employed in our large cities as shop-girls, domestics, factory-hands, etc. These women can hardly earn a bare living. In Filene's department store in Boston I know the 'sales-ladies' got only \$6 a week, while in Siegel's the wrappers, cash and errand girls in 1905 got only \$2.50. These 'sales-ladies' are required to make themselves attractive to customers, and are expected by their employers to eke out their starvation wages through the generosity of 'a gentleman friend.' Dr. Prince A. Morrow of New York, author of the work 'Social Diseases and Marriage,' published by Lea & Febiger, Philadelphia, which every physician should read, told me that every night in New York outside the department stores these 'gentlemen friends' might be seen waiting to entrap some girl for a dinner and debauchery. How many of the good women who flock to these emporiums

after bargains know or suspect that they are moral hells, places where poor girls are forced and tempted to sell their bodies and souls in order that the owners may keep the trade by selling cheap and yet make a good profit on a large capital?"

To quote more from Mr. Johnson's report: "When such girls get out of work, as often happens, they are forced to choose between selling their bodies and starving, or robbing their families or friends of what they really cannot spare. This class is always large, but is increased greatly during hard times." August Bebel gives a striking example of this in his famous book on "Woman." He quotes a letter written by the chief constable of Bolton, England, in 1865, which says that the number of young prostitutes had increased more during the cotton famine caused by the American Civil War than in the preceding twenty-five years. When good times come again, a certain proportion of these women always remain prostitutes, and a much larger one resorts to the traffic again in emergencies to eke out their scanty wages.

"Third, a class of young women, probably very large in America, who, though not forced into prostitution to avoid actual starvation, find they cannot otherwise get more than a bare existence, which is not worth living for. They find they can never have pretty clothes, can rarely go to the theater and then must take the worst seats, can never buy pretty books or pictures, candy or any of the other innocent pleasures which are dear to every girl's heart, and hardest of all cannot have a comfortable and private place to receive their friends. These young women have a strong human instinct for 'life, liberty and the pursuit of happiness,' which our Declaration of Independence declared to be the inalienable right of every one; they have little hope of marriage for a long time to come, for

they know that few or none of their men friends could support a family decently; they see their working companions enjoying good clothes, good dinners, good seats at the theater, and they know how easily these good things of life may be obtained; they know nothing of the horrors of venereal diseases and believe it is easy to avoid pregnancy; and finally, they have no strong religious or moral principles to keep chaste, nor do they fear the loss of social standing in their set. Is it then to be wondered at that the tens of thousands of working-girls who belong to this class allow themselves to be seduced by the 'gentleman friend,' the smooth-spoken flattering 'cadet,' who is a human hyena in the clothing of a 'gentleman?'"

So much for the female factor in prostitution. Let us now consider man's part in this institution. The truth that ~~man~~, not woman, originated prostitution, that it is perpetuated for *his* pleasure, not woman's, needs to be preached from the housetops. As Dr. Morrow happily expresses it, "The male factor is the chief malefactor." He adds: "The *causa causans* of prostitution is masculine unchastity—the polygamous proclivities and practice of the male, which lead him to seek the gratification of his sexual instinct whenever and wherever he can find a receptive partner. If every prostitute now living were swept out of existence, it would only act as a temporary check to the social evil, and to the spread of venereal disease." That is, a new army of prostitutes would be at once recruited from the underpaid working-girls to satisfy the persisting demand; and they would at once be infected by the licentious men, well-called prostitutes, who are hotbeds of gonorrhea and syphilis.

But man has always treated woman with cruel injustice, and in every crusade against vice he has always at-

tacked poor woman, his victim and tool. All repressive measures employed by the State, all sanitary regulations, and all persecutions (dignified by the name of moral crusades) have been directed against the woman alone. Prostitutes have been subjected to restrictive laws from the time of Moses, who punished adultery by death; prostitutes have been scourged, they have been exiled, they have been fined, they have been segregated, then scattered, they have been branded with a special costume, and lately in Paris, Berlin and other European cities they have been licensed and examined often for venereal diseases, and if diseased have been quarantined for a time—in short man has tried every legislative device to suppress these women that the most clever or stupid politicians could invent from Moses down; but he has always let the more responsible and guilty prostitute—himself—go scot free. Surely it is high time that the women took a hand at law-making and started to scourge, fine, exile, brand, segregate, license, examine and quarantine the men who make prostitutes or use them! Seriously, I believe that when women achieve economic independence and political equality, as I hope they soon will; when they learn the terrible menace of prostitution and its diseases to their sons and daughters; and when they learn to teach their children the sacredness of sex and procreation—then, and not till then, will prostitution, the foulest blot on human civilization, be abolished.

The one-sidedness of all sanitary or repressive measures makes them as illogical and futile as unjust. What would you think of a quarantine officer at San Francisco who isolated all the women and all the female rats on a plague-infected vessel arriving, but let all the men and male rats go free? You would call him an ugly little word of four letters; yet the idea and attempt to protect the citizens of a city from

venereal infection by “regulating” only the lewd women (and indeed only a part of them, for the larger part of them and the more dangerous part always escape police surveillance), letting the rakes go scot free, is just as unjust, unscientific, illogical and absurd.

Turning now to the chief malefactor, let us analyze the conditions which cause men to demand prostitutes, to make prostitutes, and into what classes its patrons may conveniently be divided. Men cause prostitution by demanding sexual gratification outside of matrimony. It is evident then at once that if all men who demand sexual life could get enough to satisfy them and soon enough in matrimony, prostitution would cease. Modern civilization makes this impossible; but it gives us a valuable hint as to the social ideal towards which we should strive.

Men force women by many different methods; by seduction and desertion, by threats of discharge and starvation, often by actual kidnapping and forcible detention in a brothel, and most common of all by employment at impossible wages combined with the offer of comfort and luxuries in exchange for her body and soul—in all these ways, sometimes with women accomplices, men drive and tempt young women to become “white slaves”. The procuring of these degraded women is now a great business of international scope; and the devils engaged in it have made and are making fortunes, and have great political power. I will not try to describe this infamous industry, but refer you to an article by George Kibbe Turner in the McClure's for November entitled “The Daughters of the Poor”. Every American who cares to protect the chastity of American boys and girls should read this terrible story and do all in his power to stop this fiendish traffic in human flesh, this wholesale debauching of poor ignorant and innocent girls from Europe and the slums of New York and Chicago.

The male factor might be divided into procurers and their customers. Men who patronize prostitutes are accessories after the fact and thereby perpetuate the demand for new virgins to be seduced and supply the white slave traffic. Every man who goes to a brothel thereby threatens the safety and purity of every poor working girl in this country just as truly as every man who goes into a saloon helps to endanger the health and morality of every lad in that town, and every woman who gambles or drinks or indulges in tight corsets, French high-heeled shoes or other follies tempts every other woman to follow her bad example.

From a sociological point of view I shall divide the patrons of prostitution into these four classes: (1) Young unmarried workers, including all men under forty who have to earn a living. (2) Young single students, business and professional men under forty, including all young men of the leisure class who are supported by their parents and have enough money to indulge freely in vice. (3) Single men of all classes over forty who are habitués of vice. (4) Married men of any age who for any reason are not satisfied with their wives and seek sexual intercourse outside.

I will dispose of the last two classes first because they are of lesser importance. The old rakes are hopeless, and may be dismissed with a word. They are survivors of classes one and two, who have neither succumbed to venereal disease (though they have practically all had gonorrhea at least), nor happily made themselves "respectable" by introducing their diseases into marriage. They are dangerous reservoirs of venereal infection; by continually infecting new prostitutes they spread these diseases just as much as do the women, and deserve medical inspection and quarantine quite as much if not more than they.

The fourth class, though doubtless

smaller, is a more important one, because when a married man commits adultery and acquires syphilis or gonorrhea, he usually transmits one of these loathsome diseases to his wife and children.

Why do these men indulge in vice, and how may they be prevented from doing so? The chief reasons are the following beside an uncontrolled sexual desire: failure of the wife to satisfy the sexual nature of the husband, whether from organic or functional sexual defect, from frigidity, from loss of physical health and all that make the charm of sex, from some contagious disease; and last but not least, from pregnancy or the fear of conception; (2) estrangement for any cause or prolonged absence on account of business; (3) infatuation for another woman, occurring usually together with No. 2; (4) ignorance of or failure to realize the serious physical injury which may result to the wife from his adultery.

I believe it is the clear duty of us physicians to advise the school and church authorities and urge upon them and all intelligent, patriotic citizens that all men, at least, before they become husbands be taught the grave nature of the venereal diseases and made to realize that if they indulge in illicit intercourse they are very liable not only to get one of these loathsome plagues themselves, but to infect and curse their wives and unborn children. I believe such knowledge would save thousands of wives and homes.

But what are men who have strong sexual natures but frigid wives or wives who for some good reason entirely fail to satisfy them sexually? Here we are treading on the dangerous ground of divorce, and I present the following statements merely as my own personal convictions on the subject. A marriage without happy sexual relations is certainly a failure; and I believe marked sexual incompatibility, which cannot be removed, as it sometimes can, by med-

ical or surgical treatment, should be sufficient ground for divorce. If all men who secured divorces on this ground were required to support their wives and children (if any), I think that few men would abuse such a law. It would certainly be better to have more divorces and fewer wives infected with syphilis and gonorrhea.

What can be done to prevent infidelity due to pregnancy or refusal by the wife because of fear of conception? Both these obstacles can be overcome; the first by a modified form of sex-intercourse which does not endanger the foetus, and the second by the careful use of the best methods of prevention of conception. I believe from my own personal experience that the knowledge and successful practice of these two things is of inestimable value in preserving marital happiness; and I wish most earnestly that I could teach all married couples these two precious secrets of conjugal happiness and of avoiding the injury to a mother and the poverty for the whole family which so often result from too rapid and repeated childbirth. But our bigoted moral censor, Sir Anthony Comstock, declares that any discussion of procreation or any phase of sex relations is obscene and immoral; and our Puritanical postmaster-general forbids any literature on such subjects to be sent through the mails. The Index to Current Medical Literature of the A. M. A. Journal for July last contains only one reference to an article on prevention of children, and that is from a German periodical, and the abstract is valueless. Indeed one journal published in New York, and edited by Dr. William J. Robinson, is the only journal in the U. S. that I know of that has ever published anything on this vitally important subject. I wish everyone of my hearers would read the article in this magazine for December, 1908, by Dr. Etta Charles called "Race Suicide: the Mother's Side of the

Question". I will quote her concluding paragraph. She says:

"If the medical profession would abolish this wholesale slaughter of the innocent (by abortion), let them tell the husband and wife how to limit the number of their household. Let us have quality and not quantity. Such procedure would close the maternity homes so boldly advertised in some of our medical journals, the sale of regulators in medical and lay press, and put the professional abortionist out of business."

I will also refer anyone who wishes to read a refutation of the common objection to prevention on moral or religious grounds to an article in the Critic and Guide for June, 1908, from which I will quote a few sentences to express my own convictions:

"'Over the unborn our power is that of God.' So wrote our great American seer and prophet, Edward Bellamy, in his famous book, 'Looking Backward'. But still how few of us have come to realize this divine power and its accompanying responsibility. Man can never have complete power over death; but he already has complete power over birth. The wisest physician cannot always prevent death; but any enlightened and intelligent man and wife can control birth as reason and love dictate. The ignorant and thoughtless man procreates like the brutes in blind obedience to his animal instinct; the intelligent and thoughtful man recognizes procreation as his most divine attribute and greatest responsibility, and considers the welfare of the mother, the child, and the community as involved in this most important act of his life."

For a description of methods of preventing conception and expert opinions on the relative value I can refer the reader to the great work on "Health and Disease in Relation to Marriage and the Married State" by Prof. H. Senator and Dr. S. Kaminer of Berlin

or to the new abridged edition called "Marriage and Disease," also published by Paul B. Hoeber of New York. This was endorsed by our A. M. A. Journal on June 26, 1909.

The modified forms of sexual gratification which enable the wife to keep her husband's love during pregnancy without any danger of abortion are too delicate a subject to treat before a mixed audience. They are of such great importance, however, that every physician should know them and be able to instruct any patients or friends who may consult his advice in the matter.

We next have in order of importance the young men of leisure and wealth. Practically all of this class under twenty-one are in college or academy; those above this age are in professional schools or actually engaged in a profession or in business. Those who patronize prostitution, and everyone who has intimately known many college men knows that the majority do so several times at least during their college course, almost always form the habit while they are in college; and probably the majority of them reform in this respect soon after leaving college or professional school either because of the purifying influence of genuine love or from fear of losing social standing, or merely from absorption in work and consequent lack of temptation to such indulgence. So that the chief patrons of prostitution in this class are the rich college youths, and to a less extent all college men who do not have to earn their support.

How comes it to pass that these young men, who are supposed to be the flower of the country, coming from what are considered our best homes of the better classes—how comes it that a large proportion of these cultured youths commit such a crime against themselves and against their families and society? Is not a system of education which teaches all the learning of

the sages, but fails to teach its students to avoid this capital crime and folly, to be condemned as fit only for savages and barbarians? It is very true that most of these youths have had a very deficient moral training at home, for which the college is not responsible, and that their parents and school teachers, with very few exceptions, have failed entirely to teach them the most elementary truths of sexual physiology and sexual hygiene and to instill into them a reverence for reproduction and all connected with it as the most vital and sacred thing in life. The lack of such education in the youth entering college puts the college authorities at a great disadvantage in their task of giving him a right attitude toward sexual matters and in protecting him from sexual errors. But is there any excuse for our college authorities not recognizing this handicap and exerting themselves all the more earnestly to teach their students these all-important truths and so protect them from the disastrous results of their ignorance and folly? In order to clearly understand how all these college youths go to moral ruin, and thousands of them become infected with venereal diseases, one must study all their conditions of life. They are living an unnatural and essentially a demoralizing life. Freed entirely in the first place from that sheet-anchor of morality, the necessity of earning a living by doing useful productive work, they find themselves also under no necessity to spend but a fraction of their time in attending lectures and doing other college work. In short they find themselves idle, and in this idleness is their temptation and downfall. This is particularly true at Harvard, where the elective system permits naturally lazy men to choose studies which will require very little work besides attending the lectures, and many of those may be "cut". At Harvard also the system of tutoring the rich, lazy youths for their examinations, and even of writing re-

quired theses for them, has been most highly developed; and naturally so, because Harvard attracts by its size, its excellent athletic advantages, its magnificent dormitories, and its convenience to a large city more of these degenerate sons of the rich than any other American college. These sons of our millionaires live outside the college grounds in a row of luxurious dormitories called "the gold coast". These victims of their fathers' hoggishness and foolish indulgence set a most powerful and fascinating example to their fellow-students, which is equally corrupting and debasing. They are at the same time corrupters and corrupted. Because these men pass their idle time going to the theatres and flirting with chorus girls, going to gilded saloons and getting drunk, and then spending the night in a house of prostitution, all the college men who wish to "get into their set" and into the secret societies which their wealth supports will do exactly the same thing. These rich men in college control college life and college standards in the same way, only I hope to a less extent, than in the world outside.

We come finally to my first class of prostitutes, the single young men who have to work for a living. This class far outnumbers any of the others. Why do these men patronize vice? The briefest answer is: because they cannot or will not marry or remain continent. But this is a restatement of the problem rather than an answer. In order to obtain a real answer to this question a careful and thorough study must be made into all the conditions of these men's lives. In other words, scientific preventive medicine is inseparable from scientific sociology. Unfortunately very little investigation of this problem has been made from this modern point of view. The only one that I have seen is that made by Mr. Alvin Johnson of Columbia and published in the report of the New York Committee of Fifteen, which investigated the social evil in

New York a few years ago. The following is a summary of city workers: First, most of these young men in the great cities have come from the county and small towns. Such a youth's income, though sufficient for his own personal needs, is not enough for him to marry on. As his income rises his ideas of personal comfort also rise, so that he still postpones marriage indefinitely or abandons the expectation altogether. His interests center almost wholly in himself. He is responsible to no one but himself. The pleasures that he may obtain from day to day become the chief end of his life. A popular philosophy of hedonism furnishes him with a theoretical justification for the inclinations that are developed by the circumstances in which he is placed. It is not unnatural, then, that the strongest native impulse of man should find expression in the only way open to it—indulgence in vice. At the same time that personal scruples with regard to continency dissolve in the crucible of city life, the main external check upon a man's conduct, the opinion of his neighbors, tends to disappear. In a great city one has no neighbors. Thus with his moral sensibilities blunted the young man is left entirely free to follow his own inclinations.

I feel this statement of Johnson's to be a superficial and incomplete one, and I will supplement it as follows:

Johnson gives the impression that these working men are at fault for not marrying, because they have too high ideas of personal comfort. What is his own idea, I wonder, of the income necessary to support a wife and family on in comfort? If he thinks he could do it on less than two thousand a year or forty dollars a week, at least in Boston or New York, I should like to see him try.

The increased cost of living during recent years has been so much greater than the rise in wages that more and more people are prevented from mar-

riage because they see that their small income cannot possibly meet the expense of living even in the simplest way in which it would be desirable to them to live at all. Indeed, when even this small income may at any time cease on account of illness, or a strike, or merely being no longer needed by his employer, such men, it seems to me, can hardly be justified in taking the great risk and responsibility of marriage and support of a wife and children.

I wish to lay the blame for this state of things where it belongs, on Society, and more directly on the rich, respectable and influential citizens who are responsible for our government and our social and industrial conditions. If these rulers of society really wish to abolish prostitution, they can do so by giving back to the workers the wealth they have taken from them, and so making it possible for every young man and woman who is able and willing to work to marry young and establish a comfortable and happy home.

Returning to the influences that lead young men into vice, I wish to emphasize the drink habit. M. Forel has gathered statistics in France to show that fully 76% of all venereal infections in that country occur under the influence of alcohol. It is safe to say that also, in this country the majority of young men first lose control of their sexual instinct when they have gotten more or less drunk with licentious companions. And here the economic factor comes in again, for the great commercial interests engaged in making and selling liquors are directly responsible for the great number of saloons and their attractiveness, the adulteration of liquors, and worst of all, the universal custom of selling drinks to intoxicated persons and breaking all restrictions of the sale of liquor that the people can make.

There can be no reasonable doubt that if the element of private profit

were removed from the liquor business there would be much less liquor made and sold and much less drunkenness.

I have already mentioned under another heading the complete lack of education concerning sexual matters under which both rich and poor youth suffer. Another powerful restraining influence which very few of these young city workers have is the love or friendship of good, sensible, and honest girls, with whom they can associate in a wholesome and innocent way. This is in great part due to the fact that most of the poor working girls with whom they are thrown either have no home at all, or else one in which for one of many reasons they are ashamed to entertain their callers.

In this brief analysis of the causes of venereal diseases as a menace to society I have tried to show that their reservoir and source is in Prostitution; that Prostitution has two great roots, which are fastened deep in the very foundation of modern civilization. The first is our unjust and degrading social and industrial system, which as a result of private ownership of capital and the power given the owner of taking for himself the greater share of all that is produced by others who use it, produces a merciless warfare among all members of society, in which everyone must get some of this magic capital if he can and not scruple to ruin his neighbor to get it. This cruel institution of capitalism, by denying to tens of thousands of young women an honest living, forces them to choose between a wretched poverty and trading with the only capital they have—their youth, beauty, innocence; in short, to give up what is naturally the most sacred thing in life to a woman—the hope of true love, marriage, home and children.

The other root is the cowardly, stupid, cynical attitude taken by society toward all sexual matters, resulting in the inexcusable custom of teaching

children nothing whatever about reproduction except that it is a low, unmentionable subject, and that adultery is forbidden in the Ten Commandments. I suppose that we must thank the ancient Christians in part at least for this attitude of modern society, for they most vigorously attacked the Grecian respect and love of the body as a form of beauty, and taught their followers to despise the body, to "crucify the flesh," and to consider everything connected with it as unclean.

Now what is the scientific remedy for this hideous disease of society? It is, it seems to me, to remove the causes which are supporting it. As the causes are many, so the remedy cannot be the introduction of any one change, but must be a combination of changes in the foundations of our economic system, in our methods of education, and also in our moral standards.

I realize that this problem is one of the most difficult as well as the most important of our national life, and one that can only be solved by the earnest thought and collective action of the whole American people when their conscience shall have been finally awakened to this national peril and dishonor. But as I have studied this problem earnestly for several years and have come to certain definite conclusions in my own mind in regard to it, I will give them to you. I do not claim any originality for these ideas, however; some of them are Dr. Morrow's.

Without further apology I will divide remedies that I suggest for the cure of the Social Evil and the Venereal Peril into three classes: legislative and political, sanitary, and moral.

1. Legislative: First, a law granting divorce for the following two reasons in addition to those already recognized: first, sexual incompatibility; and second, venereal disease, if present

at the time of marriage and unknown to the other party, or contracted after marriage, whether it has been transmitted to the other party or not.

Such a law would have to be more carefully worded; but I think public sentiment would support it better, and that it would be more effective than the law often proposed which demands that every candidate for a marriage certificate shall first secure a physician's statement that he is free from venereal disease.

Second, a law declaring the voluntary transmission of a venereal disease to another person a personal injury against said person, and punishable by a heavy fine or imprisonment. For some time there has been such a law, with a penalty of five years imprisonment, in Norway. Dr. Morrow recommends such legislation, believing that although it would seldom be resorted to it would be of much educative value, for the average man forms his moral standards chiefly in accordance with the demands of the law.

Third, the emancipation of the working girls and women from poverty and degradation, and also raising the income of the men workers so that they can marry reasonably early and support a wife and a few children in comfort, and give them each a high school education—this to be brought about by the people's gradually acquiring ownership of all the great public industries (railroads, mines, telegraph and telephone systems, and all the manufacturing and distributing "trusts") and finally of every form of capital—that is, of all means of production—so that no man will take the wealth produced by others, or own the very means of living of others, but all men will have to work to produce wealth (or for the public welfare in some way), and each will get his due share of the wealth he has helped to produce, in proportion to his needs and his usefulness.

The New York Committee of Fifteen clearly recognized the economic basis of the Social Evil in the following three recommendations: "First, strenuous efforts to prevent in the tenement houses the over-crowding which is the prolific source of sexual immorality. Secondly, the furnishing, by public provision or private munificence, of purer and more elevating forms of amusement, etc. . . . Thirdly, whatever can be done to improve the material conditions of the wage-earning class, and especially of young wage-earning women. . . . They add, it is a sad and humiliating admission to make at the opening of the twentieth century, that in numerous instances it is not passion or corrupt inclination, but the force of actual physical want, that impels young women along the road to ruin."

2. The second class of remedies is sanitary. I do not believe in reglementation, for it has proved itself entirely inefficient in preventing venereal infections, and is a gross injustice to women. All writers on this subject agree in recommending more accommodations for treating prostitutes afflicted with venereal diseases, and also that so far as possible they may be kept separate in hospitals from young women who have been seduced but are not yet hardened to prostitution. How utterly inadequate are the hospital accommodations now provided for this class of patients, who are so dangerous to the public health, is shown by the fact that in 1900 only twenty-six beds for women suffering from venereal diseases were provided by the great City of New York.

3. Third are moral measures. Under this heading I include all efforts to educate people, both men and women, young and old, concerning the social evil and the venereal peril, and also concerning sexual hygiene and marriage reform. All these problems are so inextricably connected that one cannot

understand one without some knowledge of all the others.

Of prime importance seems to me the teaching that man is responsible for prostitution, and that, in plain justice, the same moral standard should be demanded for him as for woman. That is, mothers should not allow any young man to associate with their daughters, much less to court them, whom they know or suspect indulges in debauch; and they should carefully explain to their daughters the reasons for this. At the same time they should teach them the elements of sexual hygiene and make them realize the importance of physical purity in the man to whom they entrust their future health and happiness and that of their children.

But inasmuch as the vast majority of people are wholly ignorant of sexual truth, it seems quite visionary to ask or expect them to teach their children. Indeed the parents who know something about such matters seem to have an inexplicable reluctance to explain them to their children; of a number of my men friends whom I have asked in regard to whether they received any instruction from their parents concerning sexual matters only one replied in the affirmative. Another said his father told him to ask the family doctor those questions. This seems to me a wise plan, so far as it goes.

But the most effective way of teaching sexual hygiene seems to be in the public schools by men and women who have made a special study of the subject. Such instructions would naturally be given as a part of the regular course in hygiene, and might be given by the same teacher if he or she were qualified for it. It is not for me to consider at what grade or age such instruction should be given, whether it might be given to boys and to girls in separate groups, or must be individual.

But before any such changes either in our laws or education are introduced,

there must be a campaign of popular education on these matters, organized and vigorously carried on by all people who are engaged in any way in bringing information before the public. The physicians of the country should naturally take the lead in this movement, and some in New York have already done so a year ago by forming The American Society of Sanitary and Moral Prophylaxis.

THE PHTHISICAL CHEST.

Niles remarks that the typical tuberculous chest is more nearly round than the normal chest. The increased index precedes development of tubercle infection in the lungs. It is due to an arrest of development at or about puberty and predisposes to pulmonary tuberculosis. Abnormally high indexed chests in children should be corrected by proper exercises. Until very recently almost all textbooks on medicine and physical diagnosis have described the thorax associated with pulmonary tuberculosis as flat, and even now some of them persist in this. This is a curious survival of a medical fallacy which apparently grew up simply because in the past no one had measured any considerable number of such chests. Most of them do appear to be flat, but taking measurements on a few will show that in most cases the flattening is not real and the appearance is an illusion. This is produced by the shoulders being displaced more forward and downward than normal, which makes the anterior surface of the chest appear to be displaced posteriorly—the type commonly called “round shouldered” or “hollow chested.” There are two factors which tend to produce the displacement of the shoulders in this manner: (a) a more nearly round chest than the normal, and (b) relaxation or deficient development of the shoulder girdle of muscle.—*New York Medical Journal*.

ADENOID VEGETATIONS AND IMPAIRMENT OF HEARING.

Cohn (*Zeitschrift f. Obrenheilkunde*) as an argument for the establishment of exact examination of the nose, throat and ears in school children, the author gives the result of his investigations in 1573 cases. Of this number 315, or about 18 per cent., were found to have a sufficient degree of impairment of hearing to make a professional examination advisable, although in the majority of them the impairment had not been noticed, either by the patients themselves or by the teachers. In 153 cases the impairment of hearing was directly referable to the presence of adenoids, and in 12 additional cases it was referable to the consecutive changes induced by adenoids which had spontaneously resolved. The number of cases in which adenoid vegetations could be regarded as the causative factor in the impairment of hearing in all the cases considered amounted, therefore, to about 52 per cent., and the author lays stress upon the importance of a preliminary examination of all school children, both objectively and by hearing tests, at their entrance upon school life, as well as at later stated intervals, and gives the Bezold estimate of two meters, for the whispered voice, as the lowest acceptable standard.—*Woman's Medical Magazine, Toledo*.

In ivy poisoning it is said that if the skin of the arms and legs, as well as the hands or parts of body affected be moistened, and the tops of blisters broken, and then rubbed with a cake of alum, relief will be experienced in a few minutes, and the rash will disappear in two or three days. It is stated that if one is liable to exposure to poison ivy, if, before starting out, he rubs alum over his face, neck and arms he will escape any bad effects from the exposure.

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Assistant Editors.

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EDITORIAL

THE SOUTHERN CALIFORNIA MEDICAL SOCIETY.

The Forty-second Semi-Annual Meeting of this society closed with a banquet at the Alexandria Hotel, Los Angeles, on the evening of December 2nd. All of the sessions were largely attended. The papers will appear at an early date in this journal. The discussions were invariably thoughtful, spirited and interesting. It is too bad they were not taken by a stenographer. They were well worthy of publication. The impromptu remarks of Dr. L. M. Powers following Dr. Boyd's excellent paper on "Modified Smallpox," were especially illuminating. The founders of this society—several of whom attended—may well look with pride on the results of their work.

The banquet was a perfect example of such an affair. Dr. W. T. McArthur, the toastmaster, was a real

artist and, with great discrimination, commingled his wit and wisdom in the proper proportions. We have never approved of women at banquets, but we are now thoroughly converted. Out of the two hundred guests nearly one hundred were ladies and we were all glad of their presence. If there was anything that was not said on account of our wives and sisters being with us, it were better left unsaid. The Southern California Medical Society stands for the solidarity of the medical profession of this section. It stands for closely knitting together the bonds of friendship, and it stands for a high scientific spirit.

AN EVENING IN MEDICAL EUROPE.

Such perhaps might be the name of the evening recently given at the California Club, when a large number of

the profession honored a group of five "recently returned from Europe" colleagues.

It has been rare, indeed, when a dinner has been given in medical circles which has passed off more smoothly than this. Much of the credit for this belongs to the committee of arrangements, of which Dr. George L. Cole was the head.

The toast-master was Dr. W. Jarvis Barlow and they to whom the dinner was tendered were Doctors J. H. McBride and Fitch C. E. Mattison of Pasadena, Doctors Walter Lindley and W. W. Beckett of Los Angeles, and Doctor F. M. Pottenger of Monrovia.

The menu was excellent and paved well the way for the good speeches which were to follow. The toast-master held his charges strictly to account on the time allotted them and did much in this way, as well as in his happy introductions, to make the evening proceed with snap and pleasure.

This brief notice cannot discuss the topics considered by the different speakers, but all—whether, as was the case with Dr. McBride in discussing his fondness for London, Dr. Beckett in speaking of the German surgeons, Dr. Lindley in telling about the Bard of Avon, Dr. Mattison in narrating with gusto and true American pride the superiority of Los Angeles dairy methods over those of the Dutch, or Dr. Pottenger in reviewing the recent work of the foreign specialists in tuberculosis—alike did themselves great credit and gave to their assembled colleagues both pleasurable and profitable entertainment.

It was a good thing thus to meet. May the custom continue when the occasion seems proper. K.

THE KRESS HISTORY OF MEDICINE.

It has been our privilege to glance over the proof of "The History of Medicine in Southern California" by Dr. Kress and we rejoice that the nearly two years' work of the author has resulted in such a valuable collection of facts.

We had not realized the broad scope that the author was giving to his work. It will be the authority, the work of reference on this subject, for decades to come.

To make history of the right kind is the highest type of existence, but to record that history for the satisfaction of future generations is of marked importance.

The leading medical men of Southern California are each represented with a sketch and in numerous instances with a picture. Every physician who has co-operated with Dr. Kress in gathering his material together will be glad that he has thus made this excellent work possible. Any licensed physician in Southern California who has not received a circular letter from the doctor should address him care Bradbury Building, Los Angeles, and give him any incidents or anecdotes of which he may know, in regard to our local medical history. Let us all work with Dr. Kress to make this a complete record.

We have recently been interested in trying to collect data in regard to the life of Dr. John Hall, who died in

Stratford-on-Avon about two hundred fifty years ago.

Dr. Hall married Shakespeare's daughter and was an eminent physician in Warwick county, but there is no picture of him extant. We stood by his grave in the chancel of the beautiful church in Stratford-on-Avon. He is buried there with Wm. Shakespeare, Ann Hathaway Shakespeare, and Susanah, his wife. Years have been spent trying to get more material for a biography of Dr. Hill, yet the facts are still very few.

Years after all the physicians now living in Southern California have been gathered to their fathers there will be some person interested in getting together the record of their lives. Let us then be thoughtful enough for those who are to follow us to assist Dr. Kress all we can in this laudable work.

DEFENSE FROM MALPRACTICE SUITS BY STATE MED- ICAL SOCIETY.

Inasmuch as the Medical Society of the State of California has followed the example of a number of Eastern medical societies in providing medical defense from malpractice suits, it may be of interest to note what has been the results of such state defense in other places.

This is particularly the case because many, who have not investigated the question, seem to be in doubt about the efficiency of such state society defense. The quotations here given are from the *A. M. A. Bulletin* of November 15, 1908:

"The first medical society in the United States to take up this line of work was the Medical Society of the County of New York, which in 1901 formulated a plan for defending its members from malpractice suits. So successful was the plan that in 1906 it was adopted by the Medical Society of the State of New York. In the meantime the Chicago Medical Society in 1903 inaugurated a somewhat similar scheme, which was later adopted by the state society. At present ten state associations and three county societies have such a plan in working order. These are: New York, Pennsylvania, Maryland, Illinois, Iowa, Wisconsin, Missouri, Kentucky, Nebraska and Massachusetts, the Philadelphia County (Pa.), Wayne County (Mich.), and Lucas County (Ohio) Medical Societies."

* * *

Speaking of the New York plan, the *Bulletin* states that "this plan was adopted at the annual meeting of the state society held in February, 1906. At the next annual meeting, held in February, 1907, the report of the counsel for the period from January 1, 1906, to January 1, 1907, shows that fourteen cases were in the hands of the counsel at the beginning of the year, and that thirty actions had been begun during the year, making forty-four cases in the hands of the counsel during the year. Of these, seven had been won, twelve dismissed, four were merely threatened suits which never materialized, and seventeen were still pending at the time the report was made. In the report for 1907 the counsel states

that during the two years of 1906 and 1907 not a single dollar by way of a verdict had been secured against any member who had been defended by the state society, and that the actual number of actions brought had decreased about 25 per cent. The report of the treasurer for 1906 showed a total expense of \$3000 per year, or an average expense of 50 cents per member per year. Officers of the state society regard it as one of the most valuable privileges offered to members."

* * *

The Chicago Medical Society, with about the same number of members as the Medical Society of the State of California, reported as follows:

"In 1905 the committee reported that no case that had arisen since the organization of the committee had been brought to trial. Co-operation had been arranged with a similar committee of the Chicago Homeopathic Society; membership had increased from 1200 to 1712, proportionately increasing the income of the committee. In 1906 seventy-seven suits, or threatened suits, were brought before the committee, many of which were settled out of court or dropped. Only a single judgment has been rendered against a member of the society, and this was later set aside. The membership of the society in 1906 was 1928. The committee at that time reported a balance of \$1971.14, or more than the total assessment for the entire society for the year. In 1907 seventy-nine cases were brought before the committee, in none of which the defendant physician lost except in three instances, in two of which the

settlements were amicable, while in the third, a trivial case, liability was evident and a compromise was recommended and accepted. In June, 1907, the membership of the society was 2107, and in June, 1908, 2259."

"As will be seen, the plan as inaugurated in Chicago, was markedly successful. Membership in the society was largely increased; more general and prompt payment of dues was secured, and the number of malpractice suits was greatly reduced. All members in good standing of the local society were practically insured against malpractice suits, while a surplus of nearly \$2000 was accumulated in three years."

The Illinois State Medical Society reported that "it has always been assumed that malpractice suits were more frequent in the city than in country districts. The experience of the Illinois Medical Society in the last two years has abundantly disproved this theory, as the committee have found that malpractice suits occur more frequently in country districts than in the city, and are brought more frequently against the general practitioner than the surgeon or specialist, and that consequently the plan of co-operative medical defense is of more value to the general practitioner in the country than to the physician or specialist in the city, since he is more liable to suffer from this cause and, if a suit is brought against him, the injury done to his reputation and practice is greater than that which results to the city physician. While the work of the committee has been of great value in the actual trial of

cases, it has been of much greater value in checking the indiscriminate bringing of malpractice suits against physicians. The committee found that it was the custom of certain disreputable lawyers to write threatening letters to physicians, or even to bring suit in cases where they could not even state the cause of action. There was no intention whatever of trying these cases, but rather than be put to the expense of retaining a lawyer, physicians would often settle for a small sum, from \$50 to \$150, in order to dispose of the matter. Such a system was nothing less than blackmail and was one to which any physician was exposed. By putting a stop to this practice alone, the committee has saved thousands of dollars to physicians in the state."

* * *

Without quoting further we believe all will agree that defense from malpractice suits by the State Medical Society is thoroughly efficient and practical. Those who wish can carry policies in the private companies, but time will show, we believe, that in the great majority of instances, the carrying of such policies is a useless expenditure of money.

OUR INDEX.

The annual index of the SOUTHERN CALIFORNIA PRACTITIONER will prove of value to every reader. We endeavor to make it a ready reference on almost every subject in the range of medicine. To you who may have this magazine bound turn to this index whenever you want quick information on a case and you will rarely be disappointed. We

ask all old subscribers to send in that dollar bill, check or stamps promptly. We shall also gladly welcome each new subscriber who may thus show his interest. Every dollar received is used to make this journal a more and more creditable representative and exponent of the spirit of the profession of the Pacific Southwest.

CALIFORNIA STATE BOARD OF MEDICAL EXAMINERS.

The Board met in the State Supreme Court rooms, Los Angeles, Monday morning, December 6th. The full Board was present.

It was resolved unanimously that where ten questions were to be answered, twelve be propounded, so as to give the applicant the opportunity of selecting ten questions out of twelve. This in the opinion of the Board gives the applicant a much better opportunity of showing his knowledge than the former method.

The following resolution was unanimously adopted, providing its legality be approved by the attorney of the Board:

"RESOLVED, That, beginning with the examination of December, 1909, an applicant who fails to pass, but receives 80 per cent. or more in one or more branches, said credit shall stand in said applicant's favor on the books until one year from the date upon which it was received. In other words, in any examination within a year from the date of the examination at which said applicant received those credits he will only be examined in the branches

wherein he received less than 80 per cent."

There have been numerous instances where the applicant has received 80 per cent. or more in several branches and fallen below 60 per cent. in one or two branches and has been obliged to again go through the grind of the whole examination.

While some of the questions may appear to the on-looker too technical, yet each member of the board seemed to be actuated by the spirit set forth in the title of Charles Reed's novel, "Put Yourself in His Place."

It is fully realized by this Board that the object of the California law is to provide a board to keep out incompetents and not a board to build up a protective wall around those who have already been licensed to practice in this state.

There were 97 who began the examinations, but one was thrown out because he was caught endeavoring to purchase the questions for fifty dollars

from an employe in the shop where they were being printed. This young man, who had a most excellent standing in the community in which he lived, and would probably have passed the examinations, has by this act of weakness ruined his career in California. Another dropped out because he was discovered using a compend. Two others quit under advice because they were refreshing their memories, during the examination, with memoranda on cards and cuffs.

We believe this was an absolutely honest examination. Each examiner took the books containing the answers given in his branch and will mark them and send them in to the secretary by December 20th. Dr. Geo. F. Reinhardt, the President of the Board, was married Saturday, December 4th, to Miss Aurelia Henry of Berkeley. He was on his bridal trip, and took in the examinations en route to Paris.

The questions appear in this issue and make interesting reading.

EDITORIAL NOTES

Dr. N. J. Rice is examining the pupils of the Pomona schools.

Dr. W. P. McReynolds of Los Angeles has returned from an Eastern journey.

Dr. F. C. Norman, of Jerome, spent a very pleasant week in Los Angeles during November.

Dr. A. K. Johnson has been appointed member of the U. S. Pensioning Examining Board for San Bernardino. The other members are Dr. J. N. Baylis and Dr. Owen.

Dr. G. E. Ap Lynne of Ventura recently had his house burned and lost a valuable library.

Dr. J. I. Bills, recently of Raton, has now located in Van Houten, where he is railroad surgeon.

Dr. J. R. Hurley, a San Bernardino boy, is United States Director Surgeon of Iloilo, Phillipine Islands.

Dr. Homer Rogers now has offices in the Wright & Callender Building, corner Fourth and Hill streets, Los Angeles.

Dr. F. C. E. Mattison of Pasadena has been telling the student body of Throop Polytechnic "How To Get Ready For Life."

Dr. Crawford E. Phillips, an eclectic practitioner of Wilton, Wisconsin, has located in Alhambra, Los Angeles County, California.

During the absence in the East of Dr. Roy W. Martin of Las Vegas, New Mexico, Dr. W. L. Peters will have charge of his hospital.

Dr. and Mrs. W. D. Cutter, of Bisbee, are rejoicing over the arrival of a son, their first born, which important event occurred October 20th.

Dr. David P. Fredericks, the oculist, is now located in the Whitney Building, 133 Geary St., San Francisco; Residence, 624 Mariposa St., Oakland.

Dr. Stanley Black, Health Officer of Pasadena and President of the Los Angeles County Medical Society, recently lectured on Tuberculosis in Santa Ana.

Dr. H. I. Safford, the Secretary of the El Paso County Medical Society is issuing a monthly bulletin that is a credit to the society that he represents. This society has eighty active members.

Dr. Norman Bridge was the speaker of the evening at the November meeting of the Long Beach Medical Society. The meeting was held at the Hotel Virginia and an elegant luncheon followed the scientific program.

Harold Bell Wright, the noted author of "The Calling of Dan Matthews," delivered the address at the graduation exercises of the Training School for Nurses of the Redlands Hospital on Tuesday evening November 10th. Misses Alice C. Blomberg, Minnie E. Linn, and Alta Leda Morrisson received diplomas.

In upper Michigan and Wisconsin during the deer season, just closed, 29

men were killed and 27 seriously wounded by being accidentally shot by hunters. In the whole United States 28 young men were fatally injured in playing football. We recommend that the government prohibit deer hunting, thereby saving the lives of both man and deer.

A thoroughly reliable physician in a substantial community in Southern California is about moving to Los Angeles. He is the only physician in the town, is also the railroad surgeon. His practice amounts to over \$2000 cash per annum. He will transfer his practice and carefully introduce his successor for \$800. If interested write to DEAN, 214 South Spring St., Los Angeles.

Dr. S. Adolphus Knopf, Professor of Phthisio-therapy at the New York Post-Graduate Medical School and Hospital; Associate Director of the Clinic for Pulmonary Diseases of the Health Department and Visiting Physician to the Riverside Sanatorium for Consumptives of the City of New York, is forcefully speaking and writing in favor of the purchase of the Red Cross Christmas Stamp. He styles it a "holy cause." Dr. Knopf is the enthusiast of the Atlantic coast on this altruistic subject, while Dr. George H. Kress is filling a like position on the Pacific coast.

An excellent Los Angeles physician, who at the same time is a reliable and worthy citizen, is obliged on account of his health to retire to the country. His practice pays him in cash six thousand dollars per annum. The doctor's home is easily worth seven thousand dollars and the furniture five hundred. He offers to take eight thousand five hundred for it all and carefully introduce the purchaser. It will take five thousand cash to handle this. The Editor of the SOUTHERN CALIFORNIA PRACTITIONER will put any responsible physician interested in communication. This is an unusual opportunity.

Dr. Geo. H. Schmitt, age 62, died at his home in Los Angeles the day before Thanksgiving. Dr. Schmitt graduated from the Detroit Medical College, class of 1881. He had lived in California twenty-eight years.

Dr. G. Morgan Clarke died in Los Angeles, November 11th, age 33. Dr. Clarke graduated from Rush Medical College, class of 1903. His work was confined principally to one of the associations that guarantee treatment for a certain amount per month. Patients that he had said he did good faithful work. He was buried by the Knights Templar in Mountain View Cemetery, Altadena.

Dr. W. L. Holt of Banning has recently bought the Banning Sanatorium for Tuberculosis, and reopened it in association with Dr. John C. King, whose work in this disease has long been known and well thought of among the physicians of Southern California. The institution is small, accommodating but fourteen persons; but has five modern bungalows besides the main building, and is well shaded in summer. Being on the very edge of the desert, Banning has the pure dry desert air; but also gets fresh vegetables and meats, being on the main line of the Southern Pacific, and has a favorable altitude of 2315 feet. Rates without medical service are \$45 to \$55 per month.

At the last meeting of the Yavapai County Medical Society, the following members were elected:

B. S. Frary, Seligman, Arizona.

A. L. Tilton, Kingman, Arizona.

Riley Shrum, McCabe, Arizona.

C. I. Hughes, Camp Verde, Arizona.

A paper was read by C. L. Cole, of Whipple Barracks, on "Parasites Causing Uncinariasis: Symptoms of the Disease and Its Treatment," with microscopic illustrations. Dr. Yount presented a case-report on rupture of

aneurism of left pulmonary artery, with presentation of specimens.

An invitation was received from the Board of Trustees of the Prescott schools, for the Society to devote some evening to the public discussion of some subject or subjects, which would be of interest to teachers, parents and pupils. The invitation was accepted.

Dr. Leon J. Roth of Los Angeles, who has just returned from a fifteen-months' tour of Europe, where he has been studying, was the guest of honor at a banquet given by twenty-five of his friends at the Jonathan Club on the evening of November 27th. Dr. J. J. Choate acted as toastmaster. Dr. G. W. Lasher responded with "A Doctor and His Art;" Dr. E. L. Pallette responded to "Around the World;" Dr. H. Nadeau spoke on "My Student;" Dr. Harvey McNeil spoke on "Classmates," and Dr. Leon J. Roth the honored guest, responded with "Studies Abroad." Dr. Choate made a genial, witty toastmaster and was at his best when he introduced Dr. Lasher. Dr. Roth, the guest of honor, was received with great enthusiasm. His talk was interesting, especially in regard to his studies in Wright's London laboratories. Dr. Pallette, who has recently spent several months in the hospitals of Europe and has just returned from a trip around the world, also made a good report of his observations.

Dr. John W. Coolidge, formerly of Scranton, Pennsylvania, has located in Pasadena. Dr. Coolidge graduated from the Homeopathic College, University of Michigan, class of 1881. He passed the August examination of the California State Board of Medical Examiners. In an interview with a reporter of the Pasadena *Daily News*, November 22, he states that these examinations are made so technical and narrow as in his mind to greatly belittle the medical profession of the state, and are so regarded by the

doctors of the east. He thinks if the people fully understood that these examinations do not test doctors as to what they know in a practical and useful way, such as adapts them to the successful practice of this profession, but that on the contrary the great cardinal and practical branches of medicine, like surgery, materia medica and the practice of medicine are totally ignored as subjects of examination, while technical, ultra scientific and unproven and dogmatic theories substituted, the good people who are chiefly concerned would go up to Sacramento and ask what this means.

Dr. Hugo Schroeder, formerly of Los Angeles, is now located in Parral, Mexico.

The Yavapai County Society for the Study and Prevention of Tuberculosis was organized at Prescott on the evening of Monday, November 9th, with a membership of thirty.

The following officers were elected:

President, Walter Hill, Prescott, Arizona.

First Vice-President, Prof. W. D. Baker, Prescott.

Second Vice-President, Mrs. J. B. Cleveland, Prescott

Third Vice-President, H. W. Joss, Jerome, Arizona.

Secretary, Dr. C. E. Yount, Prescott, Arizona.

Treasurer, M. B. Hazeltine, Prescott, Arizona.

Directors, J. M. Aitken, Prescott; A. A. Johns, Prescott; R. M. Ling, Prescott; Ed. Horn, Prescott; Mrs. Nathan Levy, Prescott; J. M. Elder, Mayer; Lyle W. Martin, Congress; John Fagerberg, Ask Fork; Mrs. L. B. Bell, Camp Verde.

Medical Directors, Drs. R. N. Looney, Prescott; J. K. McDonnell, Jerome; C. R. K. Swetnam, Poland; C. I. Hughes, Camp Verde; J. B. McNally, Prescott.

The time and place of the next meeting will be duly announced, as will also a plan for the winter's work.

OF GENERAL INTEREST

SHAKESPEARE'S BIRTHDAY IN STRATFORD-ON-AVON.

BY WALTER LINDLEY, M.D. LL.D.

STRATFORD-ON-AVON, (Eng.) April 25.—April 23, 1564, William Shakespeare was born in the quaint little town of Stratford-on-Avon, and for forty years the people there have given a festival on this anniversary, in which lovers of the bard from all over the world have been invited to participate. These festivals have been elaborated, until now they begin on the Monday of the week in which April 23 occurs, and last for three weeks.

A large and handsome memorial theater has been erected there, and during these annual festivals, excellent

actors come to this shrine and give the Shakespearean productions.

It was to join in this celebration that, on a beautiful Tuesday, April 20, I left London. A few minutes out of the great city, and to our left we saw Windsor Castle, with the British flag flying from its highest tower, and near it is Eton College, where over 1000 of the youthful aristocracy of England are in constant attendance, while on our right, beautifully located, is Harrow on the Hill, the famous public school, which numbered among its students Lord Byron, Cardinal Manning and many others of note. A few miles more, and we are at Reading, a flourishing city, which is the birthplace of Archbishop Laud. The

fact that will probably make Reading better known in literature than any other is that within it is the jail where Oscar Wilde languished and contracted the illness, spiritual and physical, that soon after caused his death. In his famous poem, "The Ballad of Reading Gaol," he says:

"Oho!" they cried, "the world is wide,
But fettered limbs go lame!

And once or twice to throw the dice

Is a gentlemanly game,

But he does not win who plays with
Sin

In the Secret House of Shame."

On we go through pastoral country that is a perfect delight to the eye and soul. Here we are within four miles of the ruins of historic Kenilworth; here we are within a stone's throw of beautiful and magnificent Warwick Castle, where Cromwell's army held out successfully when besieged by the forces of Charles the First.

Now we begin to feel that we are on hallowed ground. We are in Shakespeare's own country. Here is Wilmcote, where still stands the substantial birthplace and home of beautiful Mary Arden, until her marriage to John Shakespeare, the poet's father.

The next stopping place is Stratford-on-Avon itself. The cleanliness of the streets and the quaintness and antiquity of the buildings are immediately impressive. There are several good ancient hostleries in Stratford-on-Avon, but I went to the one that appeared the oldest of all, the Golden Lion. I asked the woman in charge of the bar if she knew anything about the early history of the hotel building. She said no; there is not much known about its early history, as it changed hands in 1622.

That afternoon there was a lecture in the Memorial Theater on Cymbeline, in which the lecturer spoke of the unparalleled forgiving spirit of the Shakespearean heroines. That

evening, "Much Ado About Nothing." The next afternoon it was "Coriolanus," and on Thursday evening Matheson Lang, a talented young actor from the Lyceum Theater, London, portrayed "Hamlet." These were all excellent, but the interest in them was nothing compared with that of seeing the house in which Shakespeare was born, and the old desk which he used in the grammar school.

The only letter that is known to exist that was written to Shakespeare is here displayed, in which one Quiney, a man of prominence, writes asking for a loan. Right here alongside of this letter is a letter from Quiney's brother, written in excellent Latin, when he was 11 years old, and while he was a pupil in the same grammar school with Shakespeare. The point in this is to show that they must have given a good classical course at that school in Shakespeare's day.

Here is the room where Shakespeare was born, and here, on one of its windows, is the autograph of Thomas Carlyle, and in another place that of Walter Scott, and on a beam overhead Robert Browning inscribed his name. Mr. and Mrs. Rose, who have charge of the library and museum in this fine old building, are cyclopedias of information in regard to the poet, and, withal, one realized that they are absolutely frank and honest.

Then to the grammar school where Shakespeare attended. It is still maintained apparently in very much the same old way. Everything looks antiquated. The principal of the school sits in something of a throne, and in the middle of the schoolroom is a long old table, and on that table each boy is supposed to carve his name when he completes his course. This part of the student's duty has apparently been performed with great thoroughness.

I must not stop to tell you of the

many interesting points about Stratford-on-Avon, still you must go with me to Ann Hathaway's cottage, a thatched-roof building, which, in its day, was a most excellent structure, and where you are shown the very furniture that existed when Shakespeare discovered that "Ann Hathaway," and here is the old worn bench beside the great fireplace where they must have sat side by side many evenings.

I began, though, to tell you of the Shakespeare celebrations.

Early on the morning of the 23d our ears were gladdened by the "Star Spangled Banner," "Marching Through Georgia," and other American airs from a band stationed in front of our hotel. They were just raising an American flag. Each of the leading nations of the world had sent a flag to the Mayor of Stratford-on-Avon, to be used on this occasion.

After the raising of these flags the people began to gather in front of the house where Shakespeare was born, for it was from this point the procession was to march a distance of about a mile to the Holy Trinity Church, where Shakespeare lies buried, literally a march from the cradle to the grave.

Among those who came early was Whitelaw Reid, the American Ambassador. He came walking down in the rain in the most democratic manner. The procession formed four abreast, with Mr. Reid and Mr. Priest, the Mayor of Stratford-on-Avon, in the lead, each person in the procession carrying a bunch of flowers. We stopped for two or three minutes at the old grammar school, and the boys who are now pupils there joined the column.

Then on past the home of Marie Corelli, which was suitably decorated; the well-known author was sitting at an upper window. Formerly she joined the procession each year, but kodak

enthusiasts made her march miserable, so that now she goes alone to the church on the birthday afternoon.

Soon we were walking down the elm tree avenue that made an arch above us and leads to the door of the church. Inside is the font where Shakespeare was baptized, and many other souvenirs. The music and sermon were brief; then the vicar conducted the American Ambassador to the choir stalls. Here, facing the congregation, which included many Americans, Whitelaw Reid, in simple eloquence, said: "The Players' Club founded by the greatest American interpreter of Shakespeare have done me the honor to request me to visit Stratford-on-Avon on Shakespeare's birthday and lay this wreath on his grave. When his grave was made (1616) there was no New York. Now it is not merely from the second city of all the English-speaking people that this tribute comes to the supreme dramatic genius of his race; it is from the second city of the whole world. . . . But it does bring honor to the players from New York, to all of us in the western world who prize and hold fast our joint inheritance in his fame and work. For three centuries his rank has been unquestioned as the greatest poet of the world. During all that long time the advance in knowledge, in science, in the elevation and comfort and enjoyment of life—the advance in fact in every phase of human development and human power—has been enormous, incalculable, inconceivable, bewildering. And yet with all that advance, and in all that time, the world has come no nearer to a second Shakespeare. We still measure his elevation by his loneliness, and our riches by our share in him. Don't imagine that we ever forget our share, or cease to prize its precious significance. . . . On this spot and with this inheritance the free men I represent are no

alien people, and they take with fraternal readiness your constant welcome to this common shrine."

On the conclusion of this brief speech a hymn was sung, and then each person in the great congregation walked up to the chancel and his floral tribute was placed on the grave of the great poet, where are still to be seen plainly these lines:

"Good frend for Jesus sake forbear
To digg the dust enclosed heare;
Bless be ye man ty spares thes stones,
And curst be he ty moves my bones."

Here also are the graves of Shakespeare's wife, Ann Hathaway, their daughter, Susannah, and her husband, Dr. John Hall.

That Shakespeare and his family were given the most prominent place of burial in this great church; that the home of his mother, the childhood home of his wife, and the house where he was born, were all good substantial, attractive houses, all go to prove that Shakespeare and his kinspeople were the most prominent citizens outside of the nobility, in Warwick county.

After wandering a few minutes among the moss-covered, weather-beaten stones that are in the God's acre surrounding the church, I then went a few steps to the bank of the Avon, and took a boat and passed leisurely a mile or more up the river to Charlecote Park. Here were to be seen at least 100 deer, and these are the grounds upon which Sir Thomas Lucy is said to have had Shakespeare arrested for poaching.

Another Sir Thomas, a direct descendant, now lives in the great building on this place.

As I came back to the village, the clouds had cleared away, and the sun was just setting, and I realized that one of the most perfect and fullest days of my life had closed.

CALIFORNIA STATE BOARD OF MEDICAL EXAMINERS.

Examination at Los Angeles, December 7-10, 1909.

HYGIENE.

Answer 10 Questions.

1. How is Malta fever transmitted?
2. By what means is hookworm disease cured and prevented?
3. Where is pellagra found most frequently in this country and what are the theories on its origin?
4. In a typhoid epidemic how would you go about it to discover the source of infection?
5. Give in detail your method of preventing the spread of scarlet fever.
6. Why should food-stuffs in shops be protected from insects?
7. How does the quarantine against yellow fever now differ from the methods used fifteen years ago?
8. Give a plan for the construction of a sanitary railroad grading camp.
9. What are the latest findings concerning the presence of bacteria in sewer gas?
10. How do hogs become infected with tuberculosis?
11. Why should all animals be kept off a watershed?
12. Why are plumbing fixtures ventilated?

December 1909.

HISTOLOGY.

Answer 8 Questions Only.

1. Draw cross sections of a large artery; of a large vein. Name each coat, and tell of what kind of tissue it is composed.
2. Describe the course of the renal artery and vein in the kidney. Draw diagram.
3. From whence are cells derived?
4. Describe karyokinesis. Draw diagrams.
5. Describe what happens after the fusion of the spermatozoon and ovum, and explain how the three layers of the blastodermic vesicle are formed.
6. From which layers are the following derived? Hair, Lungs, Oral cavity, Kidneys, Spinal cord.
7. Describe the formation of bone.
8. Draw a section of the Spinal cord at about its middle.
9. Describe a capillary, and explain how new ones are formed.
10. Describe connective tissue.
11. Identify 2 slides.
12. Identify 2 slides.

PHYSIOLOGY.

Answer 10 Questions.

1. Discuss the "mechanical" and "vital" theories of renal secretion.
2. Name and describe five skin reflexes. (b) Locate five centers in the cord. How may their existence be proven?
3. Discuss the cause of the rhythmical beat of the heart. (b) The conduction of the excitation over that organ and the co-ordination of its parts.
4. Trace an auditory impulse from the vibrating tympanum to the cortical center.
5. What nerves are concerned in deglutition? (b) Give function of each.
6. Describe in detail the effect of thyroidectomy. (a) parathyroidectomy. (b) What is the effect of removal of the spleen? (c) Salivary glands.
7. What is the effect of complete paralysis of the third cranial nerve? Trigemini?

8. What are the causes of degeneration of muscle? Describe the process by which it takes place. What is meant by re-action of degeneration? Describe it.
9. Describe a practical method of determining blood pressure in man.
10. What is meant by Wallerian degeneration? Describe it.
11. Describe the effect of muscular work on body metabolism.
12. Discuss the mechanism of accommodation of the eye. Describe the change in the pupil during accommodation.

PATHOLOGY.

Answer 8 Questions and Identify 2 Slides.

1. Explain fully the difference between ptomaines and toxins, chemically, and physiologically, and name several typical bacteria responsible for the production of each.
2. Describe the effects produced in the human system by infection by the more virulent types of streptococci.
3. Describe fully the effects of pellagra and the cause of the disease.
4. Describe the morbid changes resulting from autotoxaemia; both immediate and remote.
5. Describe the pathologic changes resulting from chronic alcoholism, naming these in the order of frequency with which they occur.
6. Describe the conditions found in acute pleurisy. (a) During the first twelve hours. (b) In favorable cases at the end of five days. (c) In unfavorable cases at the end of seven days.
7. Describe the lesion of carcinoma, and that of sarcoma and explain the distinctive differences between them.
8. Give the morbid anatomy of acute infantile paralysis, the cause or causes of the same and whether or not it is contagious or infectious or in any danger of becoming epidemic.
9. Give a description of the changes found in hydrophobia. How communicated and the bacteriological findings.
10. Describe the appearance of the blood in pernicious anaemia; the pathologic changes found and the probable causes of the disease.
11. Examination of 2 slides.
12. Examination of 2 slides.

BACTERIOLOGY.

Answer Only 8 Questions.

1. What do you understand by the following terms: (a) Amoceptor. (b) Receptor. (c) Complement.
2. What is the difference between an Antitoxine and a Bacteriolysin?
3. What is the precipitin test and how performed?
4. Name three "acid fast" bacteria that are pathogenic to man.
5. Describe a typical actinomycosis rosette or granule, taking care to name its compound parts.
6. Name a pathogenic "acid fast" bacillus that cannot be successfully grown on artificial culture media.
7. Enumerate the different ways in which acquired immunity may be produced.
8. What pathological condition is most commonly caused by Kock-Week's bacillus?
9. What do you understand by an antitoxic unit?

10. What micro organism is at present generally accepted as the cause of syphilitic infection?
11. Identify speilmens.
12. Identify specimens.

OBSTETRICS.

Answer 10 Questions Only.

1. The etiology of abortion, and pathological conditions liable to follow.
2. What care would you advise for the child, during the first twenty-four hours after delivery?
3. What is uterine inertia, its cause and danger?
4. Placenta praevia, diagnosis and prognosis?
5. Under what conditions (if any) is abortion justifiable? How should it be conducted?
6. How would you attempt to resuscitate an asphyxiated child?
7. How would you manage the second stage of labor so as to avoid rupture of the perineum?
8. How early can pregnancy be positively diagnosed? What are the signs?
9. How may death of the fetus be recognized after the fifth month? What would you do under such circumstances?
10. What are the difficulties, and what would be your method of delivery, in twin pregnancy?
11. Give diagnosis, prophylaxis, and Ophthalmia Neonatorum?
12. What is albuminuria of pregnancy, without structural kidney lesion?

ANATOMY.

Answer 10 Questions.

1. What are the characteristic forms of spinous processes of typical vertebrae in the cervical dorsal and lumbar regions?
2. Describe the greater and lesser sacro-sciatic ligaments. Tell what foramina they form and what muscles, vessels and nerves pass through them.
3. Describe the fascia lata.
4. Give the attachments of the diaphragm. What nerves supply it? Where can its governing nerves be compressed digitally?
5. Describe the pampiniform plexus of veins.
6. Give the relations and blood supply of the tonsils.
7. Give the relations of the prostate gland.
8. What nerve trunks send branches to the hip joint and the skin of the knee?
9. What kind of membrane is supplied whenever motion is intended? Give three examples, two of them being other than osseous articulations.
10. Describe the great splanchnic nerve.
11. What is the enervation of the peritoneum?
12. What are the lower limits of the lungs and pleurae posteriorly?

GENERAL DIAGNOSIS.

Answer 10 Questions.

1. Give the symptoms and physical signs of a pneumothorax.
2. Give the aetiology, symptoms and complications of acute mastoiditis.
3. Give the symptoms and physical signs of coxitis tuberculosa.
4. Give the diagnosis of typhoid up to the end of the first week of fever.
5. Give the symptoms of a brain tumor.
6. Differentiate chlorosis from primary pernicious anaemia.
7. Give the causes of colicky pains in the abdomen and locate each variety.

8. Draw an outline of the anterior chest wall and indicate thereon the points at which the sounds emanating from the various heart valves are best heard.
9. Give symptoms, complications and sequelae of scarlet fever.
10. Describe an attack of erysipelas.
11. Give symptoms and urinary findings in acute nephritis.
12. Name the conditions which cause an increase in arterial blood pressure.

CHEMISTRY.

Answer 10 Questions.

1. Describe the diazo reaction. Under what conditions may this reaction appear in the urine?
2. Express in Centigrade 104° Fahrenheit. Give rule for reducing Centigrade to Fahrenheit.
3. Describe iodine. State some of its properties. From what source is it chiefly obtained? Give a simple test for iodine.
4. Outline the fate of carbo-hydrates in the body.
5. Give two tests for detection of morphine.
6. What is the normal amount of urea found in the urine in a 24 hours specimen of urine? Name two conditions in which there is a diminished excretion of urea.
7. Under what pathological changes does bile appear in the urine?
8. What organic acids are found in the stomach and what are the tests for them?
9. Give characteristics of diabetic urine.
10. Define organic chemistry. Define inorganic chemistry.
11. Describe three tests for determining the presence of albumen in the urine.
12. Name some of the common chemical sediments that may appear in the urine, giving the pathological significance of each.

GYNAECOLOGY.

Answer 10 Questions.

1. Describe a case of decidua endometritis?
2. Give the physical signs indicating acute salpingitis, result of pelvic infection?
3. How would you distinguish between cancer of the cervix and cystic degeneration of the same?
4. What would you look for as the cause in a case of purulent vulvitis or vaginitis?
5. What do you understand by (a) Amenorrhoea (b) Dysmenorrhoea (c) Menorrhagia (d) Metrorrhagia?
6. Give the differential diagnosis between acute inflammation of the ovary and neuralgia of the same?
7. In the radical operation for excision of the breast, what gland beside the mammary gland becomes of importance?
8. Name three important conditions calling for uterine curettage?
9. Describe a sub-mucous myomata of the uterus?
10. Give the difference between the operation for myomectomy and hysteromyomectomy?
11. Describe a case of urethral caruncle giving symptoms.
12. Describe superinvolution of the uterus and the conditions generally following?

ST. ANN'S MATERNITY HOSPITAL.

A very pleasant meeting of the physicians and friends of St. Ann's Maternity Hospital took place Saturday evening. As St. Ann's was formally opened November 6, 1908, the first anniversary was celebrated on the same date. The home of the nurses, which is situated on the hospital grounds, was tastefully decorated for the occasion and the meeting of those interested in the hospital work was held in the large living-room of the home.

For having just passed its first milestone, the report of the hospital is exceedingly interesting and satisfactory.

In October, 1908, Bishop Conaty rented the present quarters on South Figueroa and Fifteenth streets for the purpose of establishing a hospital for maternity work. The necessity for a hospital devoted to that class of work and offering particular attention to the deserving poor, had been a long felt want. St. Rose's Guild of Catholic nurses, which had been established for some time, gave Bishop Conaty the opportunity of selecting experienced nurses who would undertake to devote themselves to the hospital and thus a beginning was made. The building was fitted for the purpose, a complete equipment for the work was installed, and St. Ann's Maternity Hospital entered upon its work and Miss Agnes Donnelly and Miss Mary J. McDonald (graduate California Hospital Training School for Nurses) were placed in charge.

The Catholic physicians of the city were called to meet the Bishop and the nurses, and responded to the call for regular service. Each physician agreed to give a month's service in regular order. It was also established by the Bishop that the hospital would be open to all reputable physicians and would not be controlled in any manner whatever by any physicians or set of physicians, but its management would be

under the direction of the nurses selected for that purpose and holding their authority directly from the Bishop, who thus became responsible for the maintenance of the hospital. This regulation was most pleasing to the physicians, who felt that they could give their services, realizing the independence which each one possessed.

A little more than a year has passed since the hospital was blessed and began its special work and the anniversary meeting was for the purpose of bringing together not only the physicians who had been present at the opening, but also all those who during the year had had patients at the hospital and were interested in its success. A dinner was served to the invited physicians at which Bishop Conaty presided. The following physicians were present: Drs. P. S. Dougherty, F. L. Anton, W. R. Molony, H. M. Rooney, H. G. McNeil, P. G. Cotter, E. B. Studer, A. J. Scholl, E. T. Dillon, J. A. McGarry, B. Reed, B. E. Reed, J. F. Holloran, J. J. O'Brien, D. A. Theime, D. B. McCann, Burkleman, E. C. Manning, P. Newmark, J. C. Ferbert, A. Tyroler, S. S. Salisbury, J. H. Kirkpatrick, S. G. Dawley, W. Clark, J. R. French, Hutchinson, J. King, J. S. Turner, W. N. Horton, Young, Mary Green, C. W. Evans, C. A. Jenks.

At the end of the dinner Bishop Conaty gave the word of welcome and expressed his great delight at having so many distinguished physicians, who were thoroughly representative of the best in the profession, gathered around the hospitable board of the Maternity Hospital, for they emphasized in a very marked degree the broad lines upon which the hospital had been established and maintained. The Bishop also gave some interesting statistics. During the year 83 patients had been received. This is a large number as at present the hospital has accommodation for only ten beds. Sixty-seven children

were born, among them being two pairs of twins. In reporting the parents of these children it was found that 28 were Catholics, 25 of different Protestant denominations, 10 of no religious faith, and 4 were Hebrews. Six deaths occurred during the year, one mother and five infants. Of the patients received 38 were cared for by Catholic physicians and 25 by non-Catholic. There were 13 charity patients, 11 of whom were Catholic and 2 non-Catholic.

The Bishop took occasion to speak of the broad lines on which the different charity work of the Church was conducted and instanced the Little Sisters of the Poor, the Good Shepherd Home, the Sisters' Hospital and the different orphanages, and invited the physicians to visit them, particularly the Little Sisters of the Poor and the Good Shepherd Home, where they would find that no line of religious belief barred the entrance of any one, nor did it affect their lives while inmates of those different institutions. Oftentimes the influence of sweet and holy charity might lead individuals to consider religion, but there was no interference in any way with the religious beliefs of others. This all would recognize to be the true charity which sought only for the opportunity to do good to the individual needing assistance. The Bishop then spoke of the close relations between the clergy and the medical profession, giving several instances of his own experience in the many years of his parochial life. He commended the splendid spirit of devotedness and broad-minded charity which he had found characterized the medical fraternity as a body.

SOUTHERN CALIFORNIA MEDICAL SOCIETY.

The Forty-second Semi-Annual Session Banquet of the Southern California Medical Society was held at the Hotel Alexandria, Los Angeles, Cal., on the evening of December 2nd, 1909.

The banquet was a notable one because all details and features were so excellent. In the first place the banquet hall was graced by a very large number of doctors and their wives. The toast-master, Dr. MacArthur, more than did himself credit, and the speakers, of whom there had rarely been so talented a group at a medical society banquet, carried the meeting into the early hours of morning. The banquet was distinguished also in being absolutely dry and in the large number of laymen on the toast list.

The toasts, and for the matter of that, the menu, were alike so excellent, that they are printed in full.

* * *

"Of a good beginning cometh a good end."

R MENU

Toke Point Oysters on half shell

"A shell game."

Chicken Broth Viennoise

"It is frequently good to be in the soup."

Relishes

"It is unsafe to judge by appearances."

Sand Dabs, Papiotte

"Master, I marvel how the fishes live in the sea. Why, as men do a-land, the great ones eat up the little ones."

Filet of Beef, Alexandria

"Life is what the chef makes it."

SHERBET

"The Cook's dash—from the North Pole."

Roast Squab, American

"I have finished that fellow—hand me another."

Salad

"What have we got here?"

Potatoes

"Why, this is good eating."

Ice Cream Fantasie

"I live to-day as well's I may,

Regardless of to-morrow, O."

Petit Fours

"My cake is dough!"

Cheese

"I'll make an end of my dinner,

There's cheese and pippins to come."

Coffee

"Nature's best sleep destroyer."

Candies

Cigars

"Tobacco, for thee I would do anything but die!

Sig.—Ad Libitum

* * *

"Conversation teaches more than meditation."

TOASTS.

Toastmaster.....Dr. W. T. McArthur

The President

"The first citizen of the land."

The City of Los Angeles.....

.....Mayor Alexander

"A splendid destiny is hers."

Our Commercial Interests.....

.....Mr. Frank G. Tyrrell

"In union there is strength."

The Model Patient.....

.....Rev. Robert J. Burdette

"And Nathan being sick sent for a physician."

The Legal Profession.....

.....Judge Curtis D. Wilbur

"Whom to himself is law, no law doth need,

Offends no law, and is a king indeed."

Our Philanthropic Institutions.....

.....Rt. Rev. Thomas J. Conaty

"Practical evidences of Christianity."

The Medical Fraternity.....

.....Dr. W. A. Edwards

"After death, the doctor."

The Fourth Estate..Mr. Samuel T. Clover

"The tongue of our country—may we never cut it out."

The Ladies.....Dr. E. W. Fleming

"There's naught but care on every hand

In every hour that passes, O,

What signifies the life of man

If 'twerna for the lassies, O!

"So passed in pleasing dialogue away

The night; then down to short repose they lay

Till radiant rose the messenger of day."

BOOK REVIEWS

MYOMATA OF THE UTERUS. By Howard A. Kelly, M. D., Professor of Gynecologic Surgery at Johns Hopkins University; and Thomas S. Cullen, M.B., Associate in Gynecology at Johns Hopkins University. Large Octavo of 700 pages, with 388 original illustrations by August Horn and Hermann Becker. Philadelphia and London. W. B. Saunders Company, 1909. Cloth \$7.50 net; half morocco \$9.00 net.

This is a superb book. It is an example of the highest type of book making, whose illustrations are remarkable for their beauty and graphic power

of adding to the value of the text. They are printed in duotone ink on a highly surfaced paper that makes every detail clear and readily understood. One does not have to use his imagination when studying these illustrations.

This book is really one of a trilogy that should be in every physician's library who wishes to practice gynecology in an intelligent manner. It is

a companion to the work of Cullen on cancer of the uterus (1900) and adenomyoma (1908) and its general plan of arrangement is the same as these two volumes.

The book is the concrete expression of more than ten years of work. Cullen commenced this work in 1904 and from 1900 to the date of its publication he has been continuously gathering data.

It is a thorough study of their own cases and material made with unusual skill and exactness, and as it stands it practically represents the work alone of the Gynecological Department of Johns Hopkins Hospital and University. The work is a monument to the efficacy of careful, conscientious history taking, with the description of operations performed. The gross and histological appearances of the myomata and the other laboratory findings are all arranged under the card system.

From this point of view it should point a lesson to those who are careless in this respect. Most practitioners neglect this very important part of their work.

It contains thirty-five chapters each devoted to one phase of the subject, all beginning with a succinct presentation of its special matter and ending with detailed reports of cases illustrating the conditions described.

The largest chapters are those devoted to sarcomatous and carcinomatous change in myomata.

During the preparation of the chapter on adenomyoma it was seen that its proportions were becoming too large for this volume, so a separate volume was published and has been already referred to in this review.

Only the operative procedures that were personally used have been described. Cullen thinks that while many American surgeons have had much to do with the development of operations

for myomata, he knows of no other man that has had more to do with this wonderful advance, either here or abroad than Howard A. Kelly. Neither do we, and we wish to add our quota of praise of this extraordinary man and his wonderful skill and aptitude in Gynecology.

The autopsy reports are taken from the records of William H. Welch and of course are valuable and add to the completeness of the work.

Several tons of myomatous material were thus examined, and while the work was colossal it has proved of the greatest value, notably in these cases in which sarcoma has been overlooked at the first examination and in which subsequently to a supposedly simple hysteromyomectomy, a sarcoma developed in the stump.

Cullen may rest assured that the reader will get as much or more pleasure from the perusal of this volume as he did in gathering the material for its publication. To me it will remain a keen pleasure to return from time to time to its pages and its beautiful illustrations.

W. A. E.

NEW-WORLD SCIENCE SERIES, PRIMER OF SANITATION. Being a simple work on disease germs and how to fight them. By John W. Ritchie, Professor of Biology, College of William and Mary, Virginia. Illustrated by Karl Hassman, Yonkers-on-Hudson, New York. World Book Company, 1909. Cloth price 50 cents.

This book should be in every household.

THE PRACTICE OF MEDICINE, a textbook for practitioners and students with special reference to diagnosis and treatment by James Tyson, M.D., Professor of Medicine in the University of Pennsylvania; Physician to the Pennsylvania Hospital; President of the College of Physicians of Philadelphia; Member of the Association of American Physicians, etc. Fifth Edition, Revised and Enlarged, with five plates and 246 other illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut street, 1909. \$5.50 net.

Tyson's Practice of Medicine, which in recent years has come to be one of the standard text-books for the student,

and also one of the works of reference used by practitioners, by its fifth edition has been brought well up to the requirements of the present time.

The chapter on infectious diseases has been thoroughly revised. Diseases of the blood has been worked over and the treatment of tuberculosis has been modernized.

Tredeau and Baldwin of Saranac have elaborated the tuberculin treatment. Opsonic work has been considered and given as much attention as in the opinion of the author it deserves. The importance of blood cultures has been emphasized.

The subject of diseases of the stomach has been enlarged and a section on testing for occult blood has been edited by the late J. Dutton Steele.

Cambridge's pancreatic reaction is thoroughly discussed in this volume. Under the advice of Drs. Rogers and Silas P. Beebe tetany and exophthalmic goiter have been rewritten. Rogers himself has written the paragraphs on the treatment of Graves' disease by the anti-serum.

Wasserman's reaction has been added to the chapter on syphilis of the nervous system, while Allen J. Smith has revised the section on parasites. This last section is one of the most admirable expositions of the subject that the author is acquainted with in any work of the kind.

The foregoing are only a portion of the revisions and work that have been devoted to the present most admirable volume.

The illustrations are excellent, the type is good, and the clear, concise, descriptions need no comment to those who are acquainted with the former writings of Tyson. It is a large volume of 1438 pages, and a work which no general practitioner should be without.

THE PRACTICAL MEDICINE SERIES, comprising ten volumes on the year's progress in Medicine and Surgery, under the general editorial charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology Chicago Post-Graduate Medical School. Volume VI. General Medicine, edited by Frank Billings, M.S., M.D., head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. Salisbury, M.D., Professor of Medicine, Illinois Post-Graduate Medical School. Series 1909. Chicago: The Year Book Publishers, 40 Dearborn street.

This volume being one of the series published primarily for the general practitioner is so arranged in several volumes that those interested in special subjects may buy only the parts they desire, the series of ten volumes being \$10, while the price of this volume is \$1.50.

Billings & Salisbury again bring General Medicine in this volume up to the latter half of the year 1909.

In considering para-typhoid fever as a distinct disease Proescher and Roddy in a report of 48 cases of para-typhoid fever is quoted as follows: Para-typhoid fever is a distinct disease, differentiated from typhoid fever by the following characteristics:

1. It is due to an infection by a bacillus which is not the typhoid bacillus.
2. The onset is more sudden, the duration shorter and the disease milder than typhoid fever.
3. Hyperpyrexia never occurs, complications are rare, and there are no sequels.
4. The mortality is less than 2 per cent.

On account of the variability of the initial symptoms, the continuance of fever for more than two weeks in some cases and the frequent similarity of irregular cases to mild cases of typhoid fever, a positive clinical diagnosis can rarely be made. All require, and should have, for exact diagnosis, an examination of the blood and the recovery, growth and recognition of the bacteria.

This volume is presented with the

same faithfulness and untiring search of literature that has made Billings & Salisbury's former volume on the same subject in the medical series so very valuable.

With this statement little more is necessary to commend the volume to the perusal of the general practitioner.

THE PRACTICAL MEDICINE SERIES, comprising ten volumes, on the year's progress in Medicine and Surgery, under the general editorial charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology Chicago Post-Graduate Medical School. Volume VIII. *Materia Medica and Therapeutics Preventive Medicine Climatology*, edited by George F. Butler, Ph.G., M.D.; Henry B. Favill, A.B., M.D.; Norman Bridge, A.M., M.D. Series 1909. Chicago: The Year Book Publishers, 40 Dearborn street.

Those who are familiar with the work of Geo. F. Butler in *Materia Medica and Therapeutics* will recognize at once the value of this section of the volume which brings *Materia Medica and Therapeutics* up to the year 1910.

Butler's text-book on this subject has come to be an authority in America and the review here presented enables one in a short period of time to grasp the later and newer ideas in therapeutics.

On page 98, he quotes W. O. Elmer on the action and dosage of phenolphthalein "as finding experimentally that the drug acts on the mucous membrane as a direct irritant and not as a hydragogue. As practically all the drug taken by the mouth can be recovered from the stools he fails to see how the drug, in its passage through the body, can be broken up into substances which are toxic, and therefore reasons that he can give the drug up to 20 or 30 grains."

In this volume preventive medicine is considered by Henry B. Favill. The name of this man to those who know something of his scientific and personal standing is a guaranty that this subject has likewise been well covered. Preventive medicine comprises nearly 114 pages, and is along the line that is being

so rapidly developed by the thinking medical men of the world today. When we recognize the fact that preventive medicine is undoubtedly destined to be the medicine of the future, the importance of this chapter cannot be overestimated.

A chapter on Climatology has been written by Norman Bridge, A.M., M.D., assisted by Edith J. Claypole, Ph.B., M.D., both of Los Angeles. This chapter is short, comprising rather less than 25 pages. Those acquainted with the work of Drs. Bridge and Claypole will regret that this chapter is not of more length, but on the other hand the general character of the article, together with the conscientiousness with which it is written, and extracts from noted authors, compensates for the brevity of the discussion. The author of this section, on page 325, commenting on Ewart's article on Alpine or home climates for early tuberculosis, in which the main and strong plea of Ewart "is for recognition of the greater usefulness of the Alpine treatment early, not only after other ways have been tried in those cases amply able to pay for the opportunity," remarks that "This looks like a commonplace special plea for a particular place on the surface of the globe, by one whose range of vision is distinctly circumscribed."

We have received *The Medical Record Visiting List or Physician's Diary* for 1910, New Revised Edition, New York. Wm. Wood & Co., Medical Publishers.

CONTENTS—Calendar, Estimation of Probable Duration of Pregnancy, Approximate Equivalents of Temperature, Weight, Capacity, Measure, etc.; Maximum Adult Doses by the Mouth, in Apothecaries' and Decimal Measures, Drops in a Fluid Drachm, Solutions for Subcutaneous Injection, Solutions in Water for Atomization and Inhalation, Miscellaneous Facts, Emergencies, Sur-

gical Antisepsis, Disinfection, Dentition, Table of Signs, Visiting List with Special Memoranda, Consultation Practice, Obstetric Engagements, Record of Obstetrical Practice, Record of Vaccination, Register of Deaths, Nurses' Addresses, Addresses of Patients and Others, Cash Account. Prices of our regular lists: For 60 patients a week, with or without dates, handsomely selected red or black, morocco binding, \$1.50; for 30 patients a week, with or without dates, same style, \$1.25.

A HANDBOOK OF MEDICAL DIAGNOSIS. In Four Parts: 1. Medical Diagnosis in General. 2. The Methods and Their Immediate Results. 3. Symptoms and Signs. 4. The Clinical Applications. For the use of Practitioners and Students. By J. C. Wilson, A.M., M.D., Professor of the Practice of Medicine and Clinical Medicine in the Jefferson Medical College, and Physician to Its Hospital; Physician in Chief to the German Hospital, Philadelphia. 408 Text Illustrations and 14 full-page Plates. "The Whole Art of Medicine is In Observation." Cloth, 1435 pages. Philadelphia and London: J. B. Lippincott Company.

This very elaborate work on Medical Diagnosis by Wilson will be welcomed because it is a comprehensive survey of modern medical knowledge from the standpoint of diagnosis. The author greatly simplifies the subject matter he discusses by dividing his book into four parts.

He has not given much space to a consideration of moot questions, preferring to emphasize the practical even at the charge of being at times over-positive.

The author states his book is the outcome of many years devoted to work in the wards, with the controlling sidelights upon a bedside diagnosis afforded by the clinical laboratory, revelations at the hands of surgical colleagues in the operating theater and confers in pathology in the post-mortem room, the frequent opportunity of seeing unusual and grave cases in consultation, and long experience as a teacher.

The work from cover to cover is one of unusual merit.

If one were to go out of one's way, almost, to comment on some statements in the book, attention could perhaps be called to the following:

The author follows the precedents of nearly all American writers, and teaches (see pages 1191, 1192 and 141) that hypertrophy of the heart increases the cardiac dullness. All of the latest German and English writers state that hypertrophy does not increase cardiac dullness, and that the latter should not be considered one of the physical signs of hypertrophy, and that it is to be diagnosed by the presence of a heaving apex beat alone.

Again, on page 1094, in describing Grocco's sign, the author does not mention that its diagnostic value as a sign of pleural effusion has been lessened since it has been found positively in pregnancy and in the presence of abdominal tumors and other conditions.

On page 842, the author does not distinguish between *Amoeba Histolitica*, the specific amoeba of dysentery, and *amoeba coli*, which may be present in normal persons.

On page 948, the author states: "Pain immediately after eating is usual in ulcer." Comment: The pain in ulcer of the stomach *typically occurs* from one to four hours after eating.

On page 516 the author states that mucus colitis is characterized by paroxysmal diarrhoea. Comment: Mucus colitis is almost invariably associated with chronic constipation, it being exceptional for it to be associated with diarrhoea.

In spaking of the symptoms and differential diagnosis of chronic cholecystitis, no space is given to dyspeptic and diagnostic confusion with chronic ulcer of the stomach and duodenum—points of great importance and evidenced by work of our leading surgeons the last three or four years.

Aside from these few points the work is a mine of information and the subject is admirably handled.

We know of no other work which covers the symptomatology of disease so thoroughly and which is in accord with modern teaching to as great extent as is the much-to-be-praised volume which Wilson presents to the profession.

We are certain it will make for itself many friends.

GENETIC PSYCHOLOGY. An Introduction to an Objective and Genetic View of Intelligence. By Edwin A. Kirtpatrick, B.S., M.Ph., Author of "Fundamentals of Child Study." Cloth, 1368 pages. Price, \$1.25. New York: The Macmillan Co., 1909.

This book concerns itself with the development of the mind from simple beginnings into more complex forms. The changes that have taken place in the evolution of mind in the race, the

order of such evolution, and the relation to each other of different types of mental activity, are all considered.

Structure and behavior are common characteristics of all organisms, but the conscious state cannot be directly observed in animals, but can only be inferred from structure and behavior. The genetic psychologist, the author states, starts with these facts of structure and behavior and traces their growth in complexity and in the individual.

The different chapters deal with behavior, instincts, acquisition of habits and ideas, structures concerned in complex behavior and in ideation, consciousness, specific conscious states, intelligence, racial and individual development.

The work is well and most interestingly written.

MISCELLANEOUS—THERAPEUTICAL HINTS

STERILIZATION OF CONFIRMED CRIMINALS AND OTHER DEFECTIVES.

Dr. J. R. Bloss, Huntington, West Virginia: The defective classes include idiots, imbeciles, majority of the insane and the greater portion of the paupers and criminals, and while a certain amount of improvement can be secured in some of them by various training methods, etc., they can never become fit to propagate a strong and sturdy race. The outcome of propagation among defectives is seen among the suicides, homicides, in the divorce court and in all classes of criminality. At the close of the year 1908 the State of West Virginia had 3397 persons under its care in the three hospitals for the insane at a cost of over \$500,000 per year; the Penitentiary, Reform School and Girls' Industrial Home at a cost of over

\$500,000 a year. In thirty-eight years from 1870 to 1908 the ratio of insane under the care of the State increased from 1 in 2135 of the total population to 1 in 583. Heredity is a very important etiologic factor in from 50 to 75 per cent. of patients in State hospitals. In two families, 14 of the 5 children are idiots and imbeciles. My conclusions are: 1. The defective classes are multiplying much more rapidly in proportion than the total population. 2. Stringent marriage laws will not control the increase among defectives. 3. Vasectomy, which does not impair the sexual powers, fulfils every requirement for sterilizing males (other than rapists) and should be provided for by law. 4. Salpingectomy should be provided for among defective females.—*Journal A. M. A.*

THE TREATMENT OF SNAKE BITE.

Doubt has recently been thrown upon the theory (it was originally Sir Lander Brunton's) that permanganate of potash is a certain remedy if promptly and properly applied; the method, now well known, is to tie a bandage tightly over the limb above the bite, convert the punctured wound into a clean cut with the lancet, and rub in the permanganate moistened with water. In India where snake bites are universally deadly a case containing lancet and permanganate is sold very cheaply. Surgeon-General Benson and others who took part in the recent medical congress in Bombay, have found, however, that though cases of cure are reported, but little reliance can be placed on the remedy; it is claimed that the experiments which appear to support Sir Lander Brunton are inconclusive, and that there is difficulty (assuming the value of the permanganate) in bringing the poison and antidote into intimate contact in the tissues. When a snake bites, the poison is deposited not in the skin itself, but in the areolar tissue beneath, and as the skin is freely movable the fangs may drag it away from its proper position before the poison is injected; it thus happens that the poison is not deposited immediately beneath the punctures. Major Wall suggested that there would be no difficulty of this sort if the permanganate were injected into the blood stream instead of into the tissues.—*Medical Times, New York.*

SMALL HEART IN CIRRHOSIS OF THE LIVER.

Dr. P. Carnot distinguishes two forms of cirrhosis of the liver; one associated with oliguria, edema, diminished blood pressure (10-13 cm. Hg.) and small heart; the other is unattended by edema, has normal urine, increased blood pressure (15-20 cm.

Hg.), arteriosclerosis, chronic nephritis and an enlarged heart.

Discussing only the first category, he is inclined to attribute the smallness of the heart and diminished blood pressure to a general cause, namely, disturbances of the portal circulation. He assumes that in consequence of such circulatory disturbance less blood enters the heart, that this organ, therefore, has less labor to perform, accommodates itself to its smaller contents, and that in consequence thereof the pressure in the aortic system falls; similar conditions exist in pulmonary consumption and in mitral stenosis.—*Post-Graduate.*

WHAT CAN THE MEDICAL PROFESSION DO TO PREVENT CRIME?

Dr. G. D. Lind, Richwood: There are two classes of criminals: First, those of apparently sound minds who have been driven to crime by the force of circumstances alone; second, those of unsound minds, and those who have inherited from ancestors certain degenerate tendencies. The second class is most numerous today. The ordinary motives for crime are less numerous today. Most crimes are due to degeneration of the race. If the same care were taken in breeding human beings as is taken in breeding animals and plants, there would be less insanity and crime. Statistics show that in the last thirty years homicides and insanity have increased over 200 per cent. in proportion to the population. Insanity is largely the cause of crime; drug intoxication is temporary insanity. The word assassin is derived from the Indian name of the drug cannabis indica which was taken by ancient assassins. When assassination was a political measure, degenerate men were chosen to commit the act. Insanity and tendency to crime are inherited in a great measure; so are genius and all good

qualities. The punishment for crime and the treatment of the insane is a matter for the medical and not for the legal profession. Men should not be sentenced for a term of years but for an indefinite period, during which time an effort to educate and reform them should be made. Sterilization of males by vasectomy is to be recommended; castration should be advised only in cases of rapists, or would-be rapists. It has other effects than sterilization. Young men should be taught the dangers of promiscuous intercourse, and married men the results of families too large for the means of support and education.—*Journal A. M. A.*

In the case of Barry, treated by Dr. A. V. L. Brokaw, Professor of Anatomy and Surgery, Missouri Medical College, and Surgeon to St. John's Hospital, where a thoracic wound, thirteen and a half inches in length, penetrating the lung cavity, was the feature, antikamnia tablets were used for the relief of pain, and it is now becoming quite a proposition with the profession as to whether morphia is not to be driven almost entirely from the field, in the broad general sense which has so long marked its use.

CONSTIPATION.

As another dietary suggestion in the treatment of constipation, Dr. Anthony Bassler, of New York (*Dietetic and Hygienic Gazette*, September, 1908), recommends the following laxative food for children who are afflicted with constipation:

BRAN GEMS.

- 2 cups of bran.
- 2 cups flour.
- 1 cup milk.
- $\frac{1}{4}$ cup molasses.
- $\frac{1}{2}$ teaspoonful baking soda (dissolved in hot water).
- $\frac{1}{2}$ teaspoonful butter.
- $\frac{1}{2}$ teaspoonful lard.
- Salted to the taste.

Users of Catheters



Sounds or Specula find that "K-Y" Lubricating Jelly eliminates much of the discomfort usually attending instrumentation.

"K-Y"—the perfect lubricant—contains enough antiseptics to preserve it without irritating the membrane.

It is non-greasy, water-soluble, contains NO formaldehyde and is offered only in collapsible tubes, in order that little or much may be used without contaminating the remainder.

Sample on request.

VAN HORN & SAWTELL

NEW YORK

and

LONDON, ENG.

Bake in a slow oven for forty-five minutes.

Bassler suggests that little children eat several of these gems after coming home from school in the afternoon, as he finds that they have a pleasant laxative effect.—*Journal A. M. A.*

Of all the many hypotics at the command of the medical profession there is none that gives as uniform satisfaction under all conditions as Bromidia. As has been previously stated, the sleep produced is of a true physiological character. It is dreamless, and the patient awakes refreshed and vigorous.

Dr. Leonard and Dr. Stookey are prepared to make the Wassermann test for the diagnosis of Syphilis. Auditorium Fifth and Olive streets, Los Angeles. Telephones F2364, Main 2364.

The introduction of Thiocol Roche insured the full benefits of creosote or guaiacol medication without any of its handicaps. Thiocol is derived from guaiacol, contains 52% of that element, and while possessing the therapeutic advantages of its parent substance, excels it in being *absolutely odorless, almost tasteless, non-irritating and soluble in water*. If clinical reports are of any value at all, then we must believe that Thiocol stands head and shoulders above all other known remedies for tuberculosis and other diseases of the air passages.

It is well worth the trouble for any physician to write the manufacturers THE HOFFMANN-LA ROCHE CHEMICAL WORKS for a sample of this excellent product.

Commercial bromides or its substitutes cannot possibly give the excellent results obtainable from Peacock's Bromides.

COMPOSITION.

Each fluid drachm contains fifteen grains of the neutral and pure bromides of Potassium, Sodium, Ammonium, Calcium and Lithium. "Cactina Pillets" present a valuable drug, the true Mexican *Cereus Grandiflorus*, in its best light. It will strengthen the heart's action; it encourages the physiological action of the human pump.

RACE AMALGAMATION.

Dr. G. Frank Lydston, of Chicago, in the course of an article on the above subject says:

"Legislation against miscegenation is illogical and ineffective because it bars legitimate relations of whites and blacks and does not penalize illegitimate relations. Legislation should go to its logical ultimate; otherwise it puts a premium on illegitimate relations.

"To what extent may race amalgamation eventually occur in this country? No man can say. When we consider that from 20 to 25% of avowed negroes in America have white blood in their veins, to say nothing of those who have so much white blood that they pass for whites, it does not require much

profundity of thought to suggest what may happen. Legislation against animality, against the primitive instinct of sexual selection, has failed. The first step toward amalgamation has been taken. The mingling of bloods has gone on, is going on and will continue, possibly at a geometric rate of increase. The black stream has always contaminated the white stream at its borders, those borders have become yellow and yellow-white, and are encroaching more and more upon the central stream. If the white stream and the black and yellow stream remain segregated there will always be a race problem. If they amalgamate the race problem will disappear, but race degeneracy and perhaps extinction for the amalgamated breed perhaps will replace it. Think it over dispassionately and answer me: Can we always stave off the issue? Will not our children and our children's children pay the price of the lunacy of their ancestors? Are we not the traditional ostrich with his head in the sand? In short, do we not stand between the Scylla of the Race Problem and the Charybdis of Amalgamation? One or the other will eventually prevail and bring disaster. The only alternative would be sterilization of the entire negro race, and he would be bold indeed who would dare to advocate this. Humanity at large would never tolerate such a thing."

GREY OIL IN THE TREATMENT OF SYPHILIS.

Pernet, discussing in the Lancet, the intramuscular treatment of syphilis, remarks that it is very important to use a properly made sterilized standard preparation. So far as he is concerned, he has always employed French preparations and found them reliable in their action. Grey oil is now official in the French Pharmacopœia. The formula is: Purified mercury, 40 grammes; anhydrous wool fat, pure and sterilized, 26

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thoroughly emulsified, unusually
palatable, extremely digestible and
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115 FULTON ST., NEW YORK

grammes; medicinal oil of petrolatum sterilized, 60 cubic centimetres This is put up in small glass stoppered bottles of 1 cubic centimetre of the preparation containing practically 40 centigrammes of mercury. Dr Pernet considers it of the greatest importance to use a uniform grey oil, for some of the accidents which have been placed on record have been the result of using much too large doses in error, and in one case of employing a preparation put up by a pharmacist who made a mistake in reading the prescription (Smirnoff's case). By employing a standard preparation of one strength and a syringe one is accustomed to, there is no chance of confusion and of errors, which may arise when different strengths and variously graduated syringes are used.—*Practical Therapeutics.*

MILTON'S BLINDNESS.

At the recent Ophthalmological Congress held at Oxford, Professor Dufour of Lausanne read a most interesting paper on Milton's blindness based on an account of his symptoms communicated by the poet to a friend, an oculist in Paris, from whom he expected advice. In 1644 his left visual field was encroached on by shadow which gradually extended until the eye became totally blind. Haloes were seen around flames and motionless objects appeared to float about. The right eye then became involved in a similar way but the pall of darkness was never complete. The upper half of the visual field was first lost. In 1654 there were sensations of faint light which Milton compared with early dawn. No shock or injury has been mentioned in con-

nection with the blindness, but Milton admits that from the age of 12 he worked up till midnight. Professor Dufour thinks that the symptoms point conclusively to detachment of the retina.—*Journal A. M. A.*

DYSPEPSIA IN MALARIAL SUBJECTS.

V. Raymond and L. Salignat have had under treatment at Vichy many cases of chronic malaria contracted in tropical countries, in which they have found chronic dyspepsia to exist. In thirty of these cases they have made accurate determinations of the stomach contents and gastric chemistry. They found that in 53 per cent. there was hyperchlorhydria, in 33 per cent. normal chemism, and in 13 per cent. hypochlorhydria. These troubles are found in recent as well as chronic cases of malarial poisoning, and are the results of various stages of the disease. The liver and spleen are also affected. There is hypertension and then hypotension of the portal circulation, and relaxation of the suspensory ligaments of liver and spleen. All sorts of symptoms are presented in gastric dyspepsia of malarial origin. In the beginning there is excitation of sensibility of the stomach, of secretion, and of motility. Later succeeds a period of depression, with diminution of secretion. In most cases there is more or less pronounced anemia. Treatment should include the use of quinine and hydrotherapeutic measures.—*Revue de Medecine.*

STATUS OF CANCER.

The investigating Committee of Insurance Fraternities reports that the hereditary nature of cancer is a subject of dispute, but the weight of evidence is in favor of a more marked hereditary influence. Many of the statistics that have been adduced in support of the opposing argument have

been founded upon life insurance records of family history, which are notoriously unreliable because of the almost universal tendency on the part of the applicant to modify or conceal disagreeable features. Few practicing physicians could be found who would doubt the transmissibility of, or inherited tendency to, this disease. It seems to be an established fact that the liability to inherit cancer is considerably greater on the female side. Cancer is widely distributed in nature; is slightly, if at all, infectious; is probably not increasing; is rarely transplantable and is not yet proved to be hereditary.

Frequently there are well-defined predisposing causes of cancer, and these causes are preventable or curable. No specific therapeutic measure exists; the knife is still our only reliable means of treatment. The chances of cure diminish in an inverse geometrical ratio to the age of the cancer. There should be an active campaign for the education of the public in this cancer problem.—*Medical Standard.*

Statistics published by the *Imperial Gazette* show that in recent years there has been a steady decrease in the number of deaths in Germany from tuberculosis, and especially from tuberculosis of the lungs. In urban centers the death rate per 100,000 fell from 226.6 in 1903 to 192.15 in 1908.

National Anti-Tuberculosis Associations have recently been formed in Russia and Greece. Similar organizations are now in existence in the United States, England, Germany, Sweden, Switzerland, Hungary, Italy and France.

WANTED, PHYSICIANS—Dr. Raymond G. Taylor has positions for two more medical men on the aqueduct. See Dr. Taylor, 234 Bradbury Building, corner Third and Broadway, Los Angeles.

